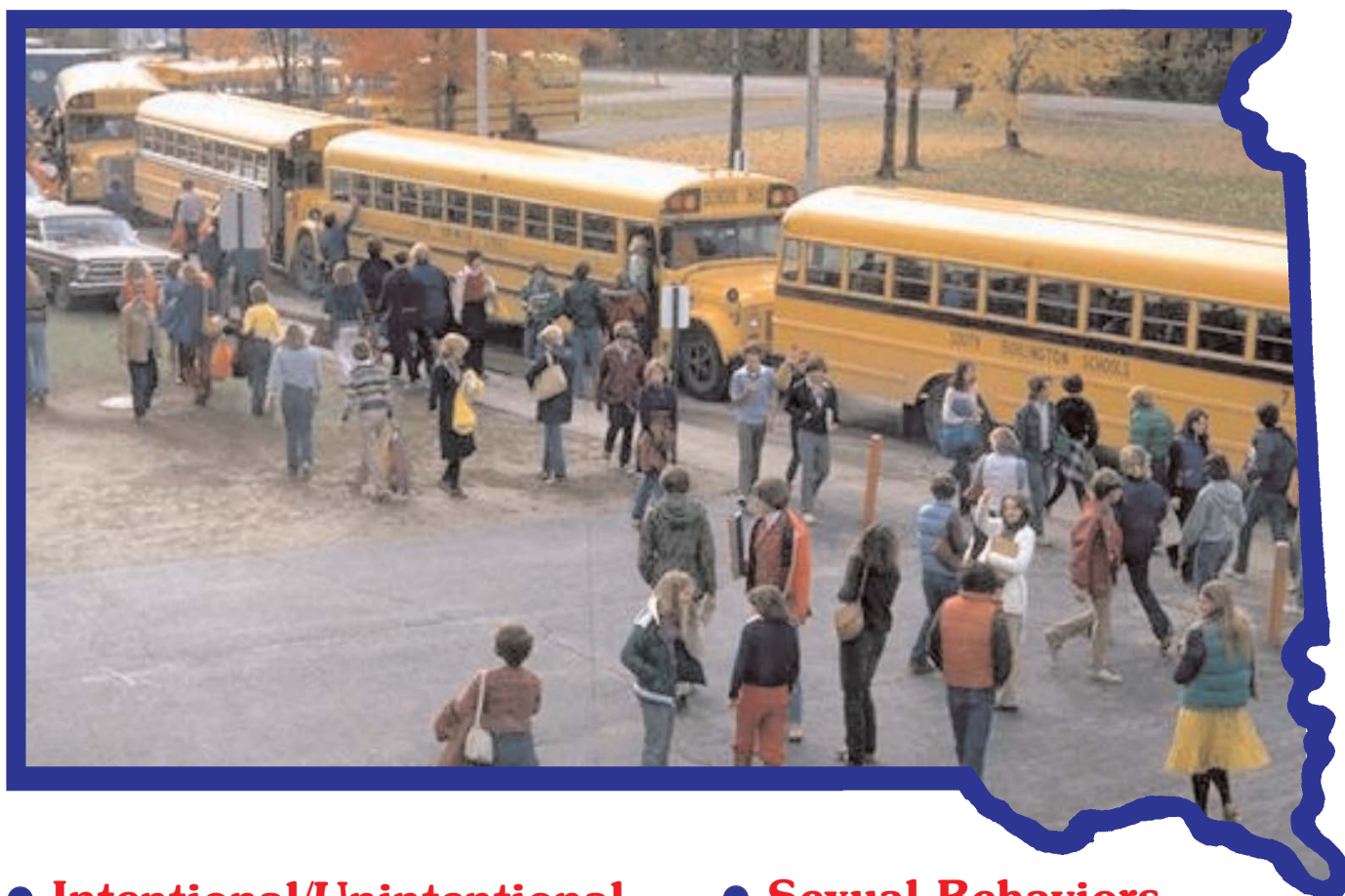




Youth Risk Behavior Survey Trend Data 1991-2001



- **Intentional/Unintentional Injuries**
- **Tobacco Use**
- **Alcohol/Other Drug Use**
- **Sexual Behaviors**
- **Dietary Behaviors**
- **Physical Activity**



Prepared for:
South Dakota Department of
Education and Cultural Affairs
Pierre, South Dakota

SOUTH DAKOTA YOUTH RISK BEHAVIOR SURVEY TREND DATA 1991-2001

Compiled by:

Coordinated School Health Program
Office of Comprehensive Services for
Children and Families
South Dakota
Department of Education & Cultural Affairs
700 Governors Drive
Pierre, South Dakota 57501-2291
Phone (605) 773-3261



Questions/concerns or requests for additional copies of this publication should be directed to:
Coordinated School Health, DECA, 700 Governors Drive, Pierre, SD 57501-2291
Phone: (605) 773-3261 FAX: (605) 773-3782
Web site: <http://www.state.sd.us/deca/cscf/schoolhealth/index.htm>

Acknowledgements

South Dakota is one of a handful of states that have been able to secure weighted data for the years 1991-2001 for the Youth Risk Behavior Survey (YRBS). This accomplishment would not have been possible without the continued commitment of our state's school administrators, school principals, teachers and students and their willingness to participate in the survey. Sincere appreciation is extended to those school districts.

The South Dakota Department of Education and Cultural Affairs and the South Dakota Department of Human Services have provided continued fiscal support for the surveys over the past ten years.

South Dakota's Department of Health and the Department of Social Services have served in an advisory capacity regarding survey question development since the surveys began.

Gratitude is extended to the Division of Adolescent and School Health, United States Center for Disease Control and Prevention. They have provided continued technical assistance and financial support for the survey.

Our sincere thanks are extended to David B. Schubot, Ph.D. Behavioral Scientist, Medical College of Wisconsin. Dr. Schubot has served as the consultant for this project since its inception and continues to provide highly valued expertise.

We hope these trend data will prove to be a useful tool.

Table of Contents

Description of the Youth Risk Behavior Survey	4
Behaviors that Result in Intentional and Unintentional Injuries	5
Tobacco Use	21
Alcohol and Other Drug Use	31
Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancy	45
Dietary Behaviors	55
Physical Activity	69
References	77

Description of the Youth Risk Behavior Survey

Developed by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, the Youth Risk Behavior Survey questionnaire reflects input from several hundred professionals across the country. These professionals represented state and local education and health agencies, national organizations, and experts in each of the major topic areas measured by the survey.

The YRBS is a questionnaire consisting of items that assess the six priority health-risk behaviors that result in the greatest amount of morbidity, mortality, and social problems among youth. These behaviors fall into six categories: behaviors that result in unintentional and intentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that result in HIV infection, other sexually transmitted diseases and unintended pregnancies; dietary behavior; and physical activity.

A random sample of approximately 1,500 South Dakota students in grades 9-12 completes the questionnaire every two years. All public, private, and Bureau of Indian Affairs (BIA) schools in South Dakota containing any students in grades 9, 10, 11, or 12 are eligible to be selected for inclusion in the survey. Ungraded and out-of-school programs are excluded.

This direct measurement of priority health risk behaviors can be used not only to determine the level of risk that exists among our adolescent population, but to assist us in developing resources and planning successful interventions that can positively impact the behavior of South Dakota youth.

A compilation of all national trend data can be found on the Centers for Disease Control and Prevention web site: <http://apps.nccd.cdc.gov/yrbss/>

Intentional/Unintentional Injuries

Question:

1. When you rode a bicycle during the past 12 months, how often did you wear a helmet?

Rationale:

This question measures the frequency of helmet use while riding bicycles. Head injury is the leading cause of death in bicycle crashes.^{1,2} Bicycle helmets might prevent approximately 56% of bicycle related deaths.³ Proper use of bicycle helmets can eliminate 65%–88% of bicycle-related brain injuries and 65% of serious (i.e., facial fractures and lacerations seen in the emergency department) injuries to the upper and middle regions of the face.⁴⁻⁶ In 2001, 65.1% of high school students reported riding a bicycle in the previous 12 months, while 84.7% of those students reported never or rarely wearing a bicycle helmet.⁷

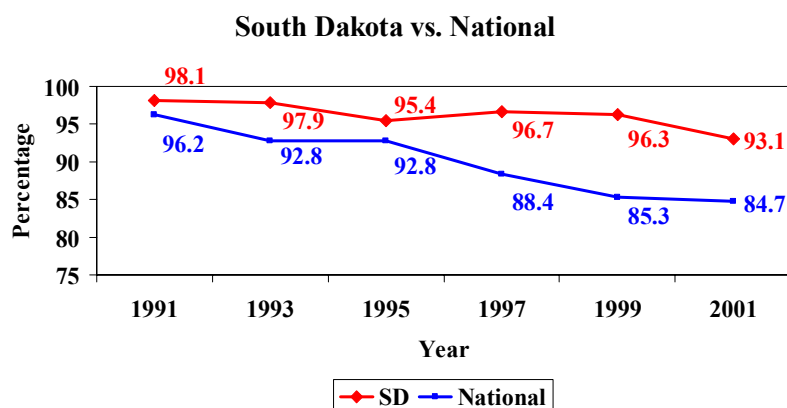
Related National Health Objectives for Year 2010:

Increase the number of states and the District of Columbia with laws requiring bicycle helmets for bicycle riders to include all states and the District of Columbia.

Results: The results for Questions 1 are summarized below.

Question 1

Of students who rode a bicycle during the past 12 months, the percentage who never or rarely wore a bicycle helmet.



Question:

2. How often do you wear a seat belt when riding in a car driven by someone else?

Rationale:

This question measures the frequency with which seat belts are worn when riding in a car. Proper use of lap and shoulder belts could prevent approximately 60% of deaths to motor-vehicle occupants.⁸ Motor-vehicle related injuries kill more young adults aged 15–19 years than any other single cause in the United States.⁹ In 2001, 14.1% of high school students reported rarely or never wearing a seat belt while riding in a car driven by someone else.⁷

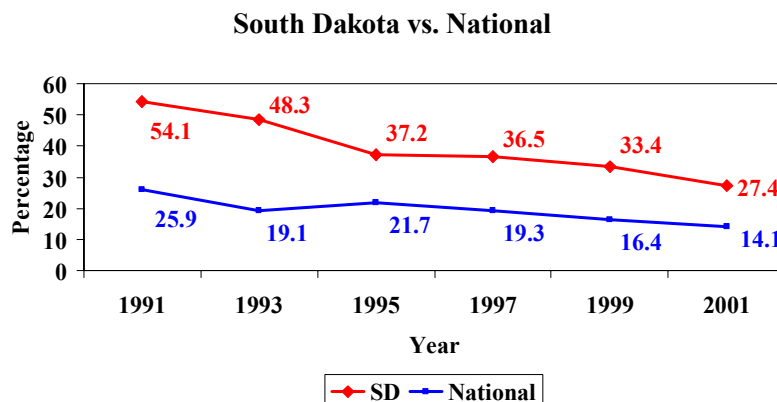
Related National Health Objectives for Year 2010:

Increase use of safety belts to 92%.

Results: The results for Question 2 are summarized below.

Question 2

Percentage of students who never or rarely wear a seat belt when riding in a car driven by someone else



Behaviors that Result in Intentional and Unintentional Injuries

Questions:

3. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?
4. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

Rationale:

These questions measure the frequency with which high school students drive a motor vehicle while under the influence of drugs or alcohol or ride as a passenger in a motor vehicle operated by someone who is under the influence of alcohol or drugs. Approximately 30% of all motor vehicle crashes that result in injury involve alcohol.¹⁰ Alcohol use is associated with 36% of motor-vehicle related fatalities among those aged 15–20 years and 20% of fatalities among those less than 15 years old.¹¹ In 2001, 13.3% of high school students nationwide reported having driven a vehicle one or more times after drinking alcohol in the past 30 days and 30.7% of high school students reported riding on one or more occasions in the past 30 days in a car with a driver who had been drinking alcohol.⁷

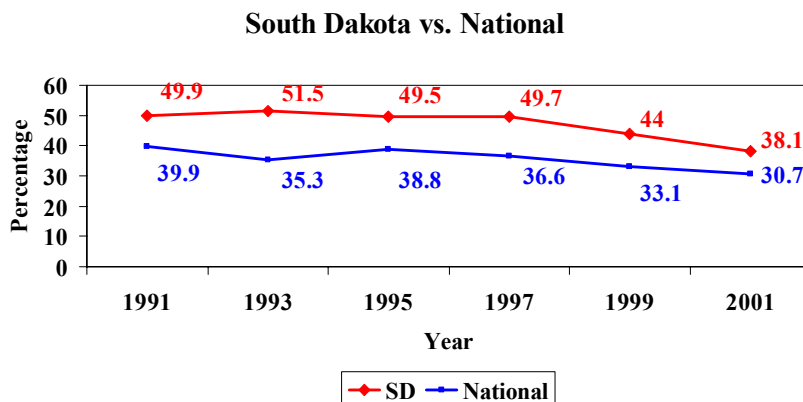
Related National Health Objectives for Year 2010:

Reduce to 30% the proportion of high school students who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol.

Results: The results for Questions 3 and 4 are summarized below and on page 10.

Question 3

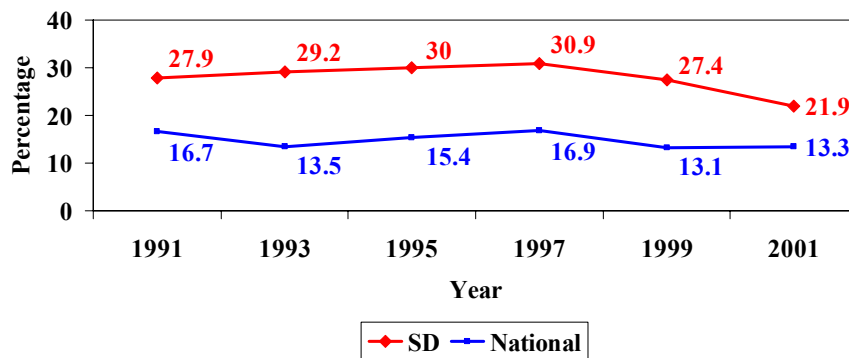
Percentage of students who during the past 30 days rode one or more times in a car or other vehicle driven by someone who had been drinking alcohol



Question 4

Percentage of students who during the past 30 days drove a car or other vehicle one or more times when they had been drinking alcohol

South Dakota vs. National



Questions:

5. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?
6. During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?
7. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

Rationale:

These questions measure violence-related behaviors and school-related violent behaviors. Approximately 9 of 10 homicide victims in the United States are killed with a weapon, such as a gun, knife, or club.¹² Homicide is the second leading cause of death among all youth aged 15–19 years (10.6 per 100,000) and is the leading cause of death among black youth aged 15–19 years (37.2 per 100,000).¹³ Homicide rates increase substantially from 1.3 per 100,000 in youth aged 10–14 years to 10.6 per 100,000 in youth aged 15–19 years.¹³ Firearms markedly elevate the severity of the health consequences of violent behavior.¹⁴ In 1998, 82% of homicide victims 15 to 19 years old were killed with firearms.¹² In 2001, 5.7% of high school students reported carrying a gun.⁷ In 1999, about 1.6 million thefts of student property occurred at school.¹⁵ Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students.¹⁶ A significant decrease in weapon carrying (e.g. a gun, knife, or club) among high school students on school property from 1993 to 2001 (11.8%–6.4%) occurred. In 2001, 6.6% of high school students felt unsafe at school or traveling to or from school.⁷

Related National Health Objectives for Year 2010:

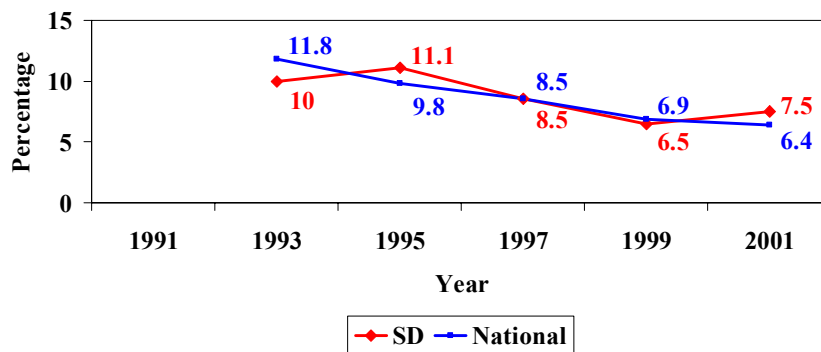
Reduce weapon carrying by high school students on school property to 6%.

Results: The results for Questions 5-7 are summarized on pages 12 and 13.

Question 5

Percentage of students who carried a weapon such as a gun, knife, or club on school property on one or more of the past 30 days

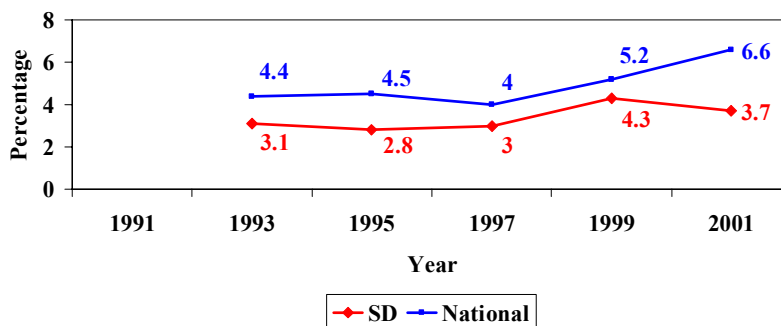
South Dakota vs. National



Question 6

Percentage of students who did not go to school on one or more of the past 30 days because they felt unsafe at school or on their way to or from school

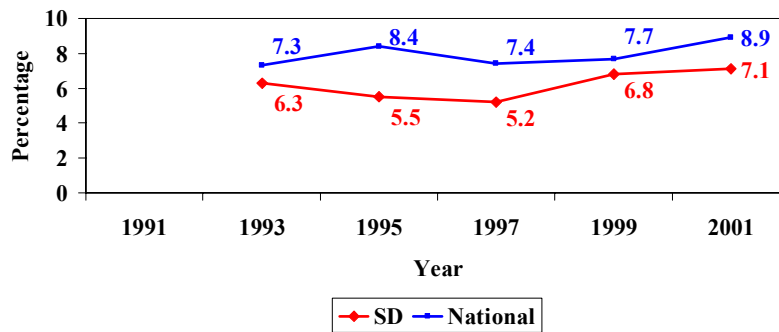
South Dakota vs. National



Question 7

Percentage of students who had been threatened or injured with a weapon on school property on one or more times during the past 12 months

South Dakota vs. National



Questions:

8. During the past 12 months, how many times were you in a physical fight?
9. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?
10. During the past 12 months, how many times were you in a physical fight on school property?
11. During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?
12. Have you ever been physically forced to have sexual intercourse when you did not want to?

Rationale:

These questions measure the frequency and severity of physical fights, school-related fights, and abusive behavior. Physical fighting is an antecedent for many fatal and nonfatal injuries.¹⁷ During 1999, students aged 12–18 years were victims of 880,000 nonfatal violent crimes at school.¹⁵ In 2001, 33.2% of high school students reported that they had been in a physical fight anywhere and 12.5% had been in a physical fight on school property. Forced sexual intercourse has been associated with increased risk of chronic diseases and other health problems.¹⁸ In 2001, 9.5% of high school students had been hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend on one or more occasions in the past year, while 7.7% of high school students ever experienced forced sex.⁷

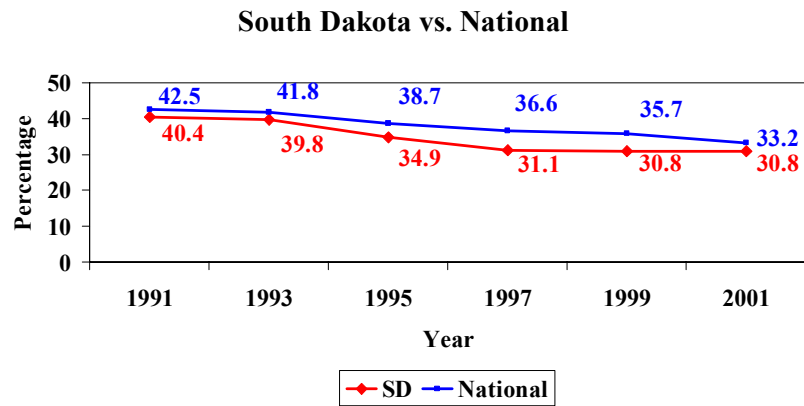
Related National Health Objectives for Year 2010:

Reduce physical fighting among high school students to 32%.

Results: The results for Questions 8-12 are summarized on pages 15-17.

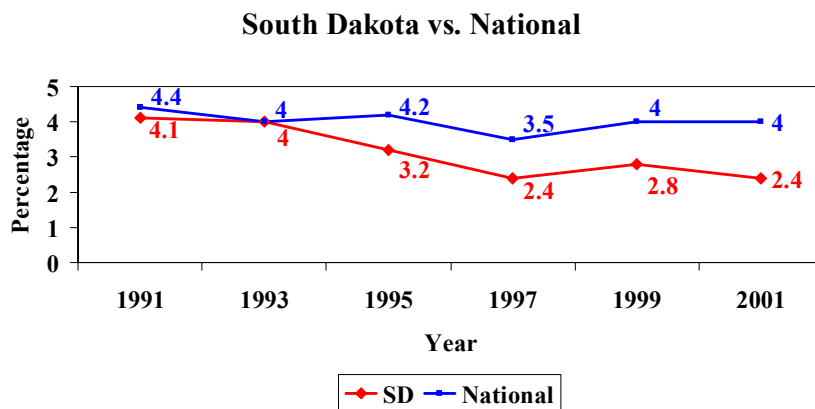
Question 8

Percentage of students who were in a physical fight one or more times during the past 12 months



Question 9

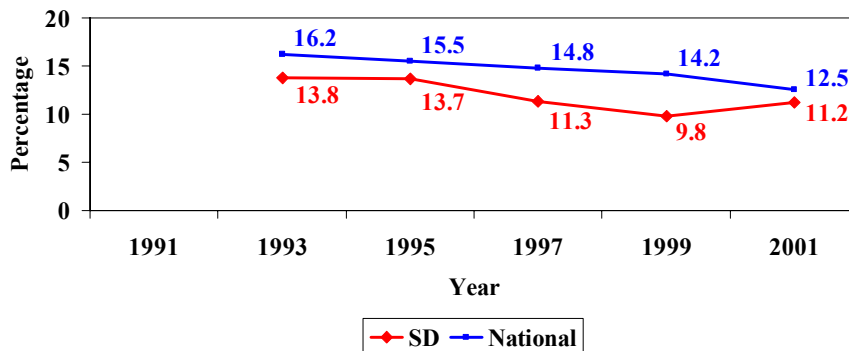
Percentage of students who were injured in a physical fight one or more times during the past 12 months and had to be treated by a doctor or nurse



Question 10

Percentage of students who were in a physical fight on school property one or more times during the past 12 months

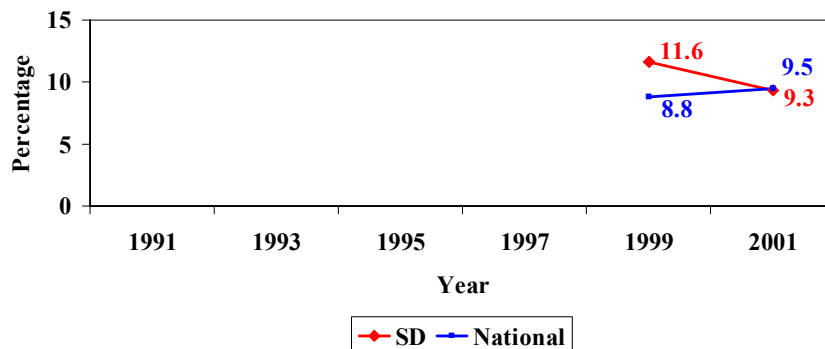
South Dakota vs. National



Question 11

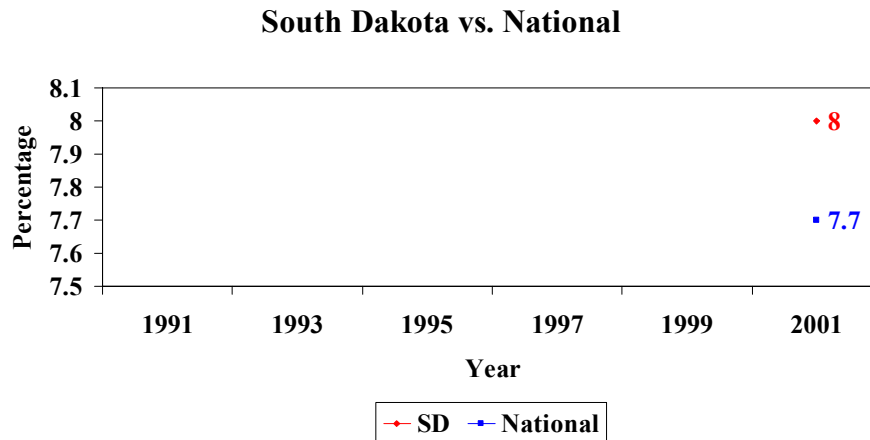
Percentage of students who were ever hit, slapped or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months

South Dakota vs. National



Question 12

Percentage of students who have ever been physically forced to have sexual intercourse when they did not want to



Questions:

13. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?
14. During the past 12 months, did you ever seriously consider attempting suicide?
15. During the past 12 months, did you make a plan about how you would attempt suicide?
16. During the past 12 months, how many times did you actually attempt suicide?

Rationale:

These questions measure sadness, suicide ideation, attempted suicides, and the seriousness of those attempts. Suicide is the third leading cause of death among youth aged 15–19. The suicide rate for persons aged 15–19 was 8.2 per 100,000 in 1999 down from a high of 11.0 per 100,000 in 1994.^{9,13} In 2001, 14.8% of high school students had made a specific plan to attempt suicide and 8.8% had attempted suicide one or more times in the past year. From 1991 to 2001, the percentage of high school students who seriously considered suicide decreased from 29% to 19%.⁷

Related National Health Objectives for Year 2010:

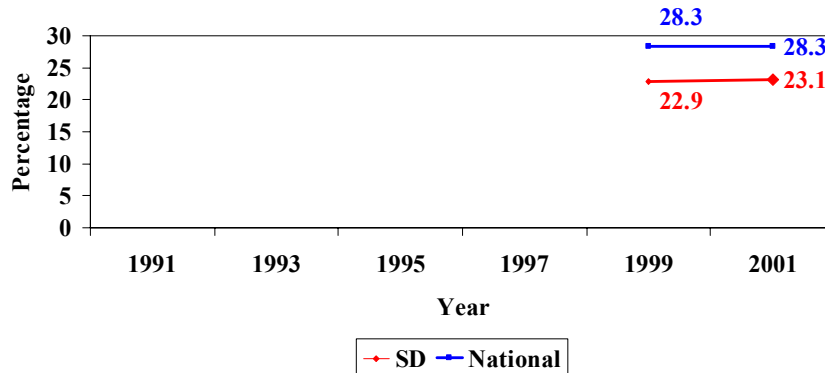
Reduce the rate of suicide attempts by high school students to a 12-month average of 1%.

Results: The results for Questions 13-16 are summarized on pages 19 and 20.

Question 13

Percentage of students who, during the past 12 months, ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities

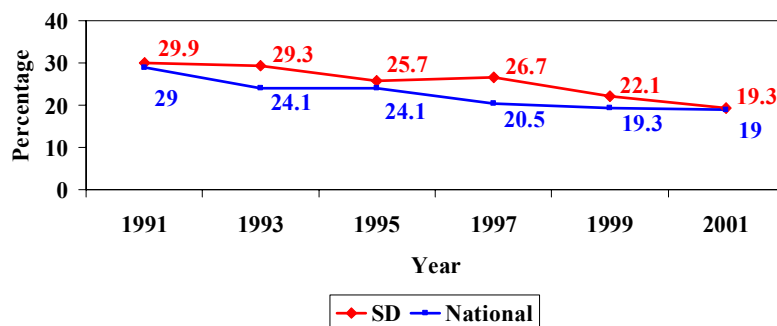
South Dakota vs. National



Question 14

Percentage of students who seriously considered attempting suicide during the past 12 months

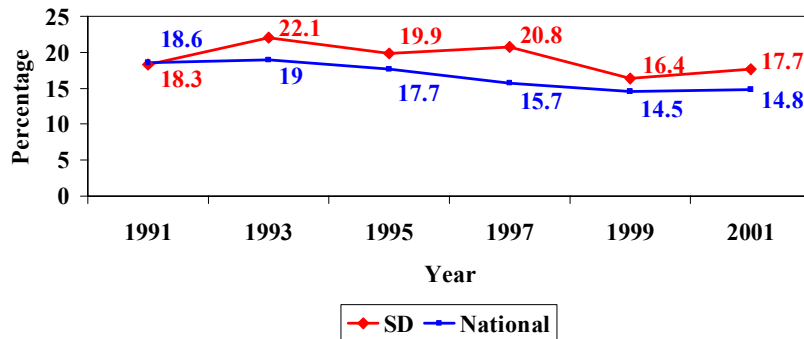
South Dakota vs. National



Question 15

Percentage of students who made a plan about how they would attempt suicide during the past 12 months

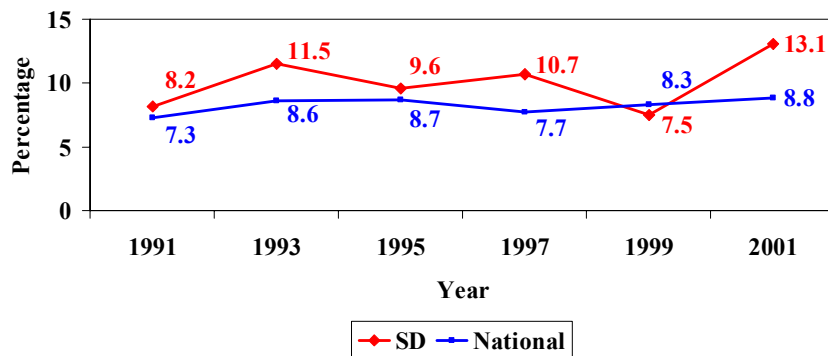
South Dakota vs. National



Question 16

Percentage of students who actually attempted suicide one or more times during the past 12 months

South Dakota vs. National



Tobacco Use

Questions:

17. Have you ever tried cigarette smoking, even one or two puffs?
18. How old were you when you smoked a whole cigarette for the first time?
19. During the past 30 days, on how many days did you smoke cigarettes?
20. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?
21. During the past 30 days, how did you usually get your own cigarettes?
22. During the past 30 days, on how many days did you smoke cigarettes on school property?
23. Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days?
24. During the past 12 months, did you ever try to quit smoking cigarettes?

Rationale:

These questions measure lifetime and current smoking patterns, age of initiation, access to cigarettes, smoking on school property, and attempts to quit smoking. Tobacco use is considered the chief preventable cause of death in the United States with approximately one fifth of all deaths attributable to tobacco use.¹⁹ Cigarette smoking is responsible for heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease.¹⁹ In addition, cigarette smokers are more likely to drink alcohol and use marijuana and cocaine as compared to nonsmokers.²⁰ If current patterns of smoking behavior persist, an estimated 5 million people in the United States under 18 years of age in 1995 could die prematurely from smoking-related illnesses.²¹ In 2001, despite laws prohibiting the sale of tobacco to minors in all states and the District of Columbia, 19.1% of high school students who were less than 18 years of age and who were current smokers reported that they usually bought cigarettes in a store or gas station in the past 30 days and, of those, 67.2% were not asked to show proof of age when buying cigarettes.⁷ Approximately 46% of school districts in the United States prohibit tobacco use in buildings, on all school property, in school vehicles, and during school events on or off campus.²² In 2001, 9.9% of high school students reported smoking cigarettes in the last month on school property. The percentage of high school students who ever smoked cigarettes was steady from 1991–1999 and then decreased from 1999–2001. Current cigarette use among high school students increased from 1991 (27.5%) to 1997 (36.4%) and then decreased by 2001 to 28.5%.⁷

Related National Health Objectives for Year 2010:

Reduce use of tobacco products in the past month by high school students to 21%.

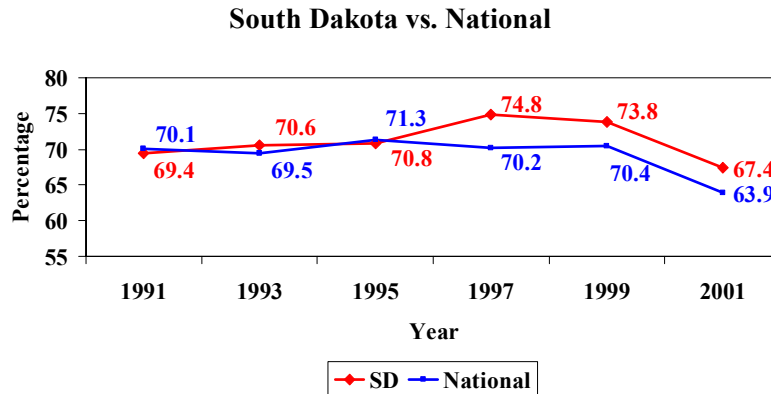
Reduce use of cigarettes in the past month by high school students to 16%.

Increase tobacco use cessation attempts by adolescent smokers to 84%.

Results: The results for Questions 17-24 are summarized below and on pages 25-27.

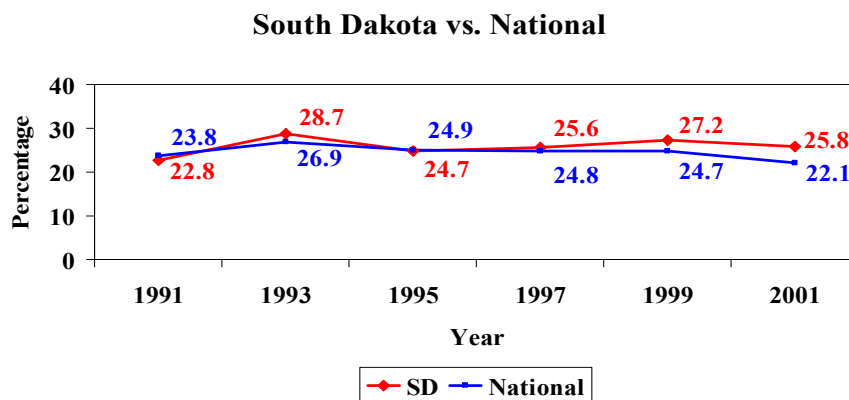
Question 17

Percentage of students who ever tried cigarette smoking, even one or two puffs



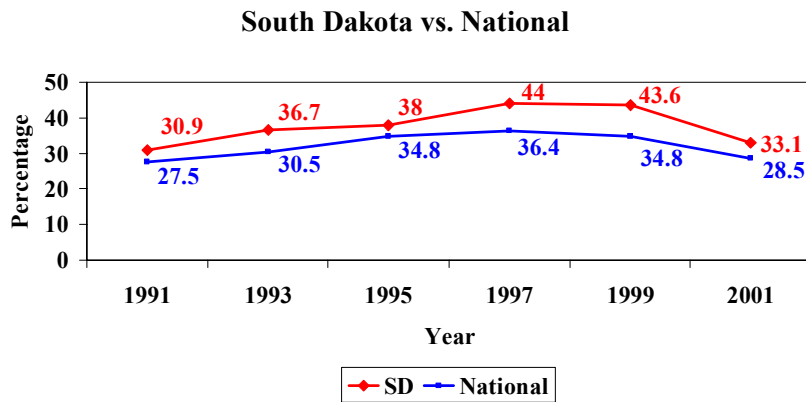
Question 18

Percentage of students who smoked a whole cigarette for the first time before age 13



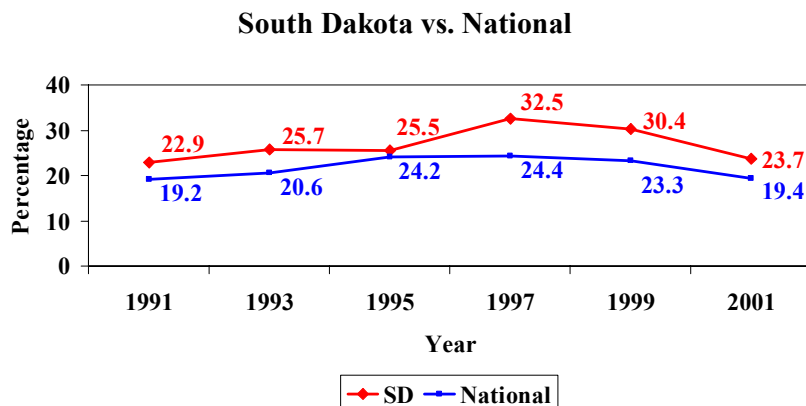
Question 19

Percentage of students who smoked cigarettes on one or more of the past 30 days



Question 20

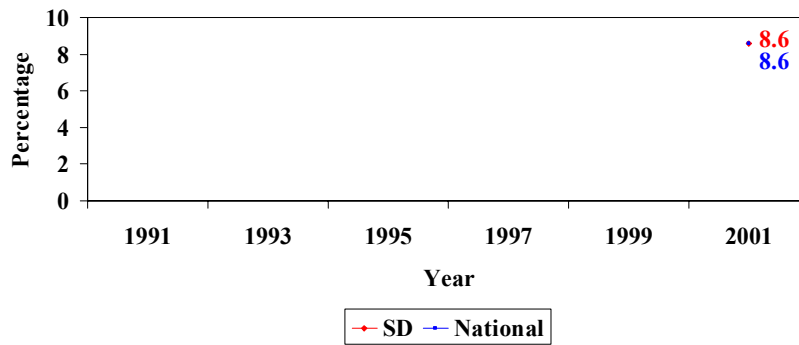
Percentage of students who smoked two or more cigarettes per day on the days they smoked during the past 30 days



Question 21

Percentage of students who usually got their own cigarettes by buying them in a store or gas station during the past 30 days

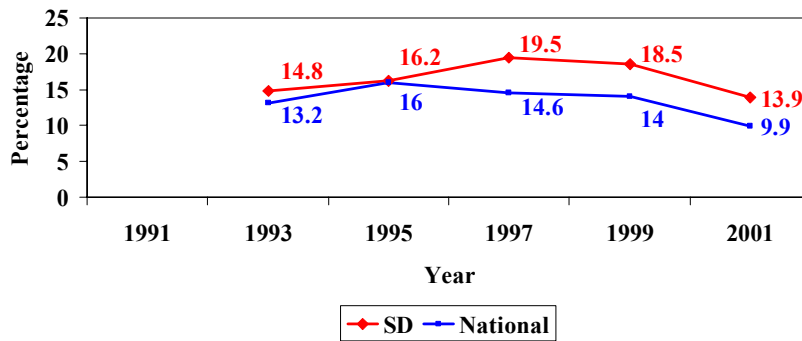
South Dakota vs. National



Question 22

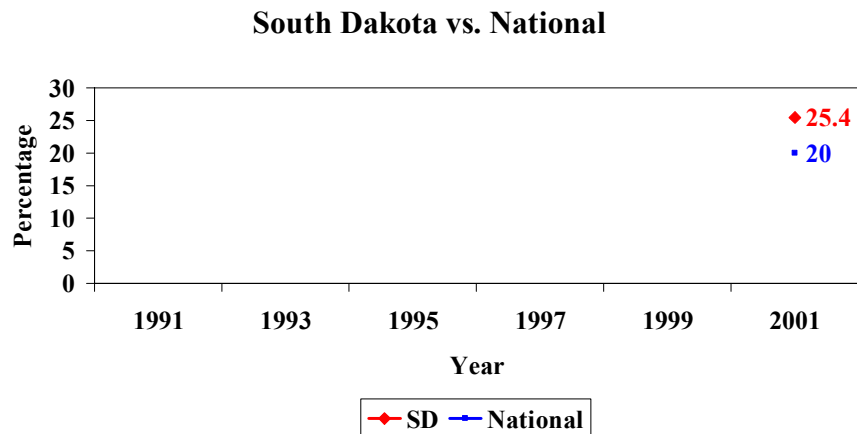
Percentage of students who smoked cigarettes on school property on one or more of the past 30 days

South Dakota vs. National



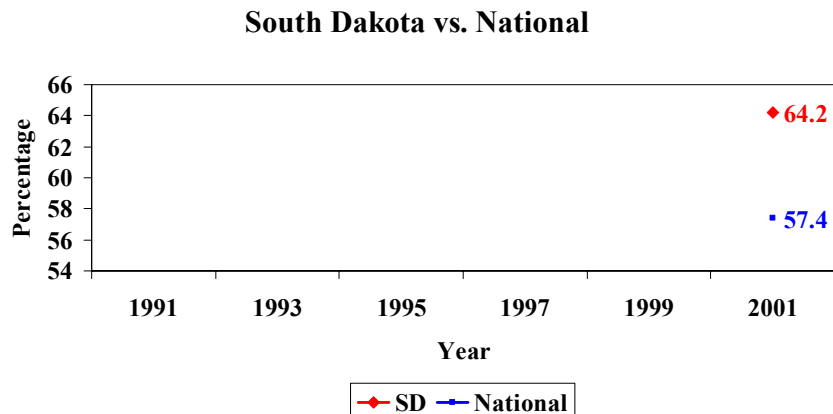
Question 23

Percentage of students who ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days



Question 24

Percentage of students who were current smokers and have tried to quit smoking during the past 12 months



Questions:

- 25. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip, such as Redman, Levi Garrett, Beechnut, Skoal, Bandits, or Copenhagen?
- 26. During the past 30 days, on how many days did you use chewing tobacco, snuff or dip on school property?
- 27. During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?

Rationale:

These questions measure smokeless tobacco use, smokeless tobacco use on school property, and cigar use. Smokeless tobacco use primarily begins in early adolescence.²³ Approximately 75% of oral cavity and pharyngeal cancers are attributed to the use of smoked and smokeless tobacco.²⁴ In 2001, 14.8% of male high school students were current smokeless tobacco users and 9.4% of male high school students reported current smokeless tobacco use on school property.⁷ Cigar smoking also has been associated with cancers of the oral cavity, larynx, esophagus, and lung.²⁵ In 2001, the prevalence of cigar use in the past month was 22.1% among male high school students and 8.5% among female high school students.⁷

Related National Health Objectives for Year 2010:

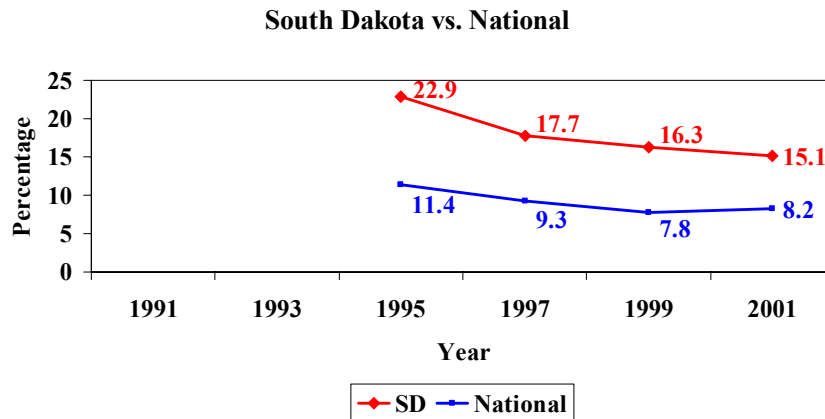
Reduce use of spit tobacco in the past month by high school students to 9%.

Reduce use of cigars in the past month by high school students to 22%.

Results: The results for Questions 25-27 are summarized on pages 29 and 30.

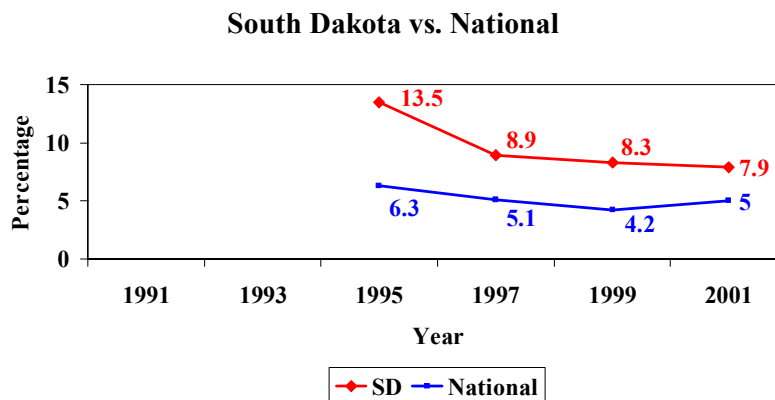
Question 25

Percentage of students who used chewing tobacco or snuff on one or more of the past 30 days



Question 26

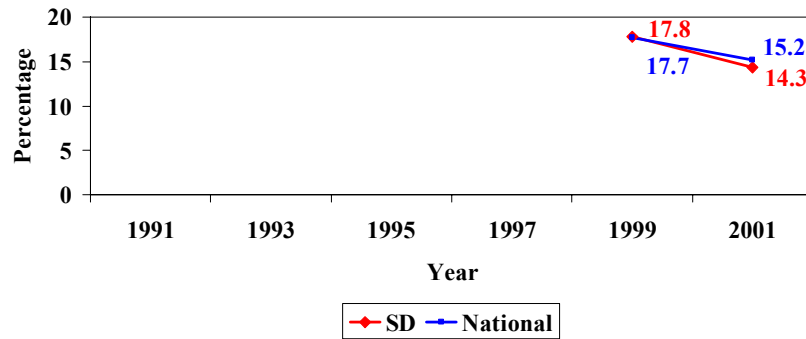
Percentage of students who used chewing tobacco or snuff on school property on one or more of the past 30 days



Question 27

Percentage of students who smoked
cigars, cigarillos, or little cigars on one
or more of the past 30 days

South Dakota vs. National



Alcohol/Other Drug Use

Questions:

- 28. During your life, on how many days have you had at least one drink of alcohol?
- 29. How old were you when you had your first drink of alcohol other than a few sips?
- 30. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
- 31. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
- 32. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

Rationale:

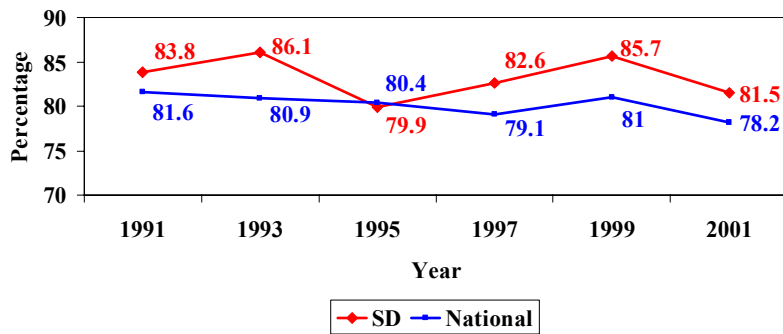
These questions measure lifetime and current use of alcohol, age of initiation, episodic heavy drinking, and drinking on school property. Approximately 30% of all motor vehicle crashes that result in injury involve alcohol,¹⁰ and motor vehicle crashes are the leading cause of death among youth aged 15–19 in the United States.⁹ Heavy drinking among youth also has been linked to increased number of sexual partners, use of marijuana, and poor academic performance.²⁶ In 2001, 78.2% of high school students had one or more drinks of alcohol in their lifetime, 47.1% had one or more drinks of alcohol in the past 30 days, and 29.9% had 5 or more drinks of alcohol on one or more occasions during the past 30 days.⁷

Results: The results for Questions 28-32 are summarized on pages 34-36.

Question 28

Percentage of students who had at least one drink of alcohol on one or more days during their life

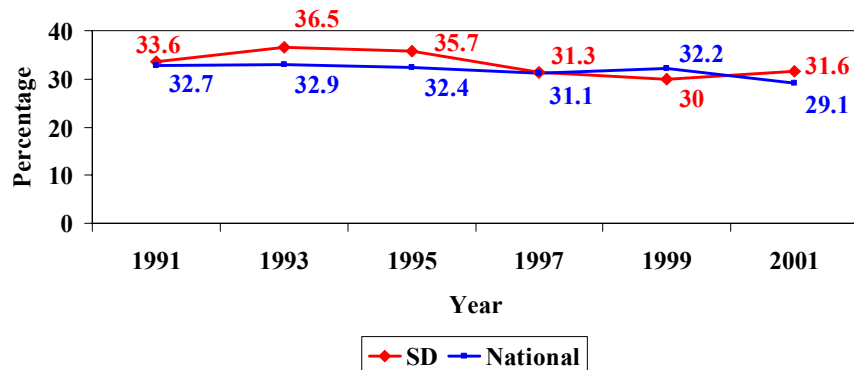
South Dakota vs. National



Question 29

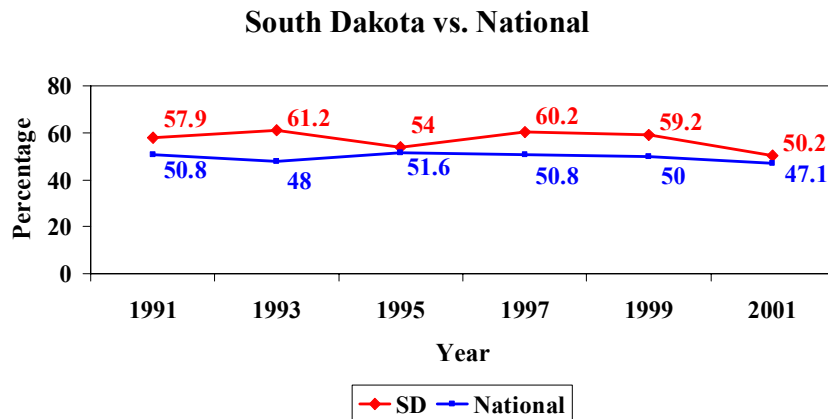
Percentage of students who had their first drink of alcohol other than a few sips before age 13

South Dakota vs. National



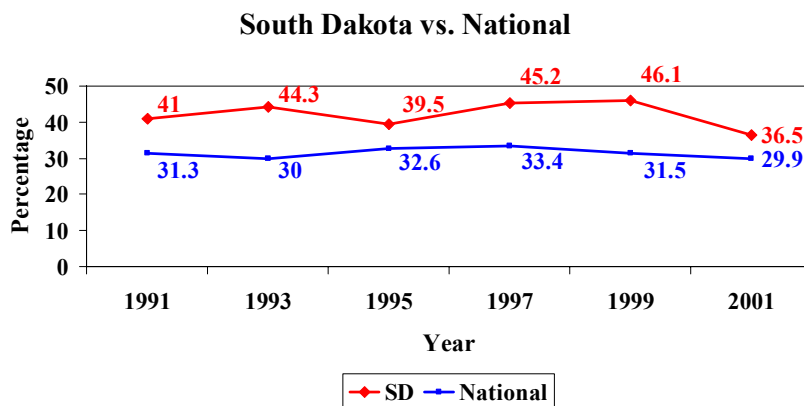
Question 30

Percentage of students who had at least one drink of alcohol on one or more of the past 30 days



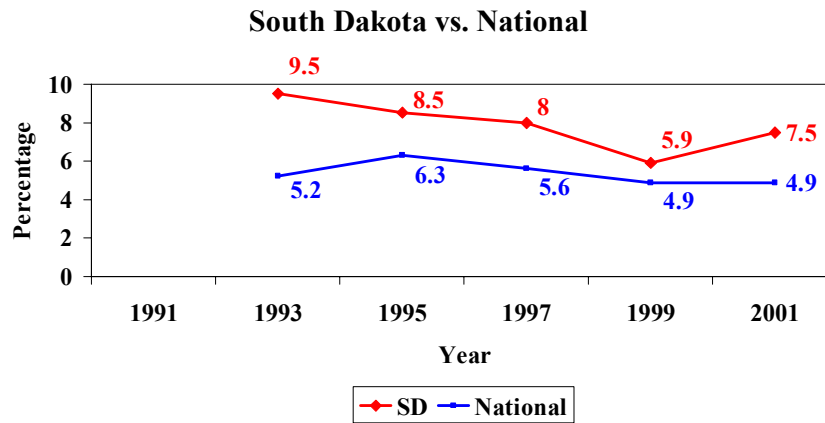
Question 31

Percentage of students who had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days



Question 32

Percentage of students who had at least one
drink of alcohol on school property on
one or more of the past 30 days



Questions:

33. During your life, how many times have you used marijuana?
34. How old were you when you tried marijuana for the first time?
35. During the past 30 days, how many times did you use marijuana?
36. During the past 30 days, how many times did you use marijuana on school property?
37. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?
38. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?
39. During your life, how many times have you sniffed glue, or breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
40. During the past 30 days, how many times have you sniffed glue, or breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
41. During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?
42. During your life, how many times have you taken steroid pills or shots without a doctor's prescription?
43. During your life, how many times have you used a needle to inject any illegal drug into your body?
44. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

Rationale:

These questions measure lifetime and current use of marijuana, cocaine, and inhalants and lifetime use of heroin, methamphetamines, ecstasy, hallucinogens, steroids, and injected drugs. In addition to morbidity and mortality due to injury, drug use is related to suicide, early unwanted pregnancy, school failure, delinquency, and transmissions of sexually transmitted diseases (STD), including human immunodeficiency virus (HIV) infection.²⁷ Despite improvements in recent years, drug use is greater among youth in the United States than has been documented in any other industrialized nation in the world.²⁸ In 2001, 42.4% of

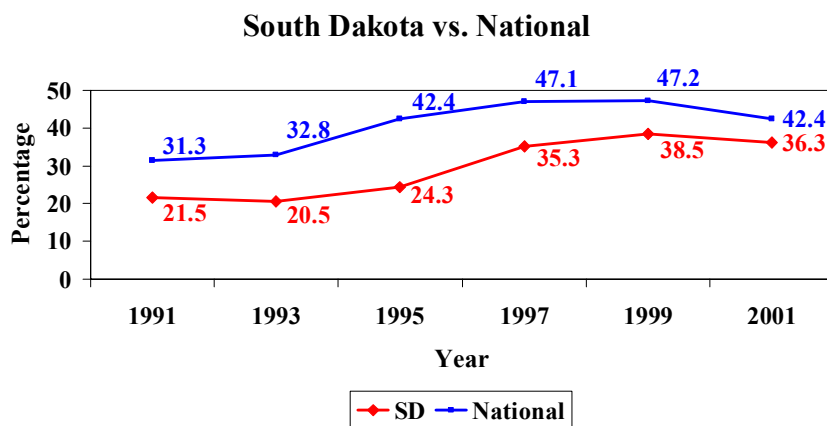
Alcohol and Other Drug Use

high school students had used marijuana in their lifetime and 9.4% of high school students had used some form of cocaine in their lifetime. From 1991 to 2001, the percentage of high school students who used cocaine in the past month increased from 1.7% to 4.2%.⁷

Results: The results for Questions 33-44 are summarized below and on pages 39-43.

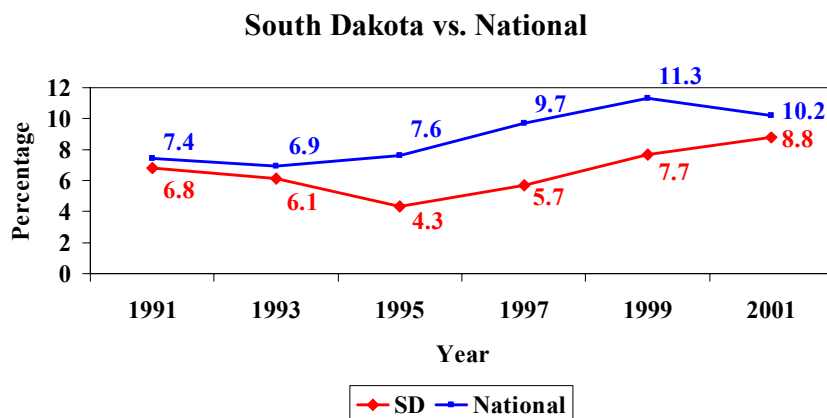
Question 33

Percentage of students who used marijuana
one or more times during their life



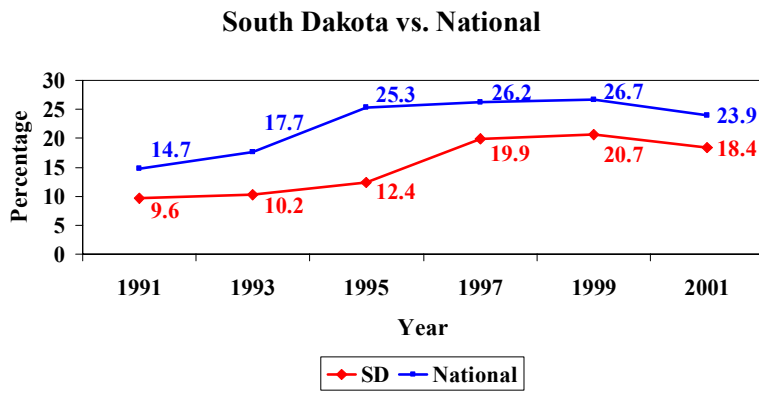
Question 34

Percentage of students who tried marijuana
for the first time before age 13



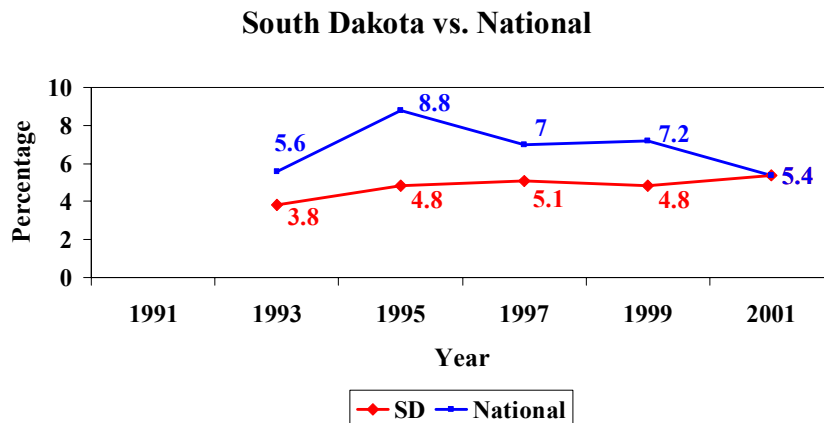
Question 35

Percentage of students who used marijuana one or more times during the past 30 days



Question 36

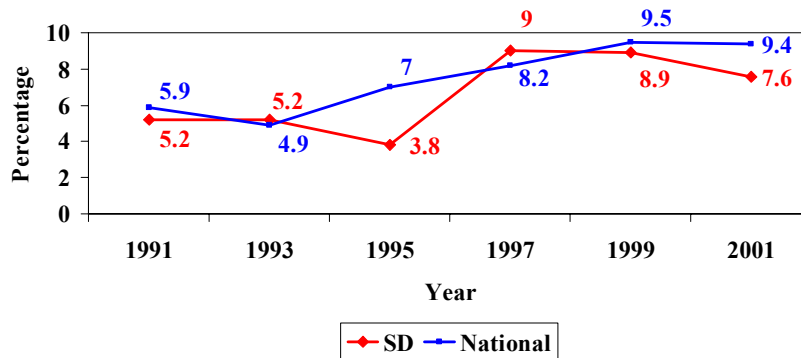
Percentage of students who used marijuana on school property one or more times during the past 30 days



Question 37

Percentage of students who used any form of cocaine, including powder, crack, or freebase one or more times during their life

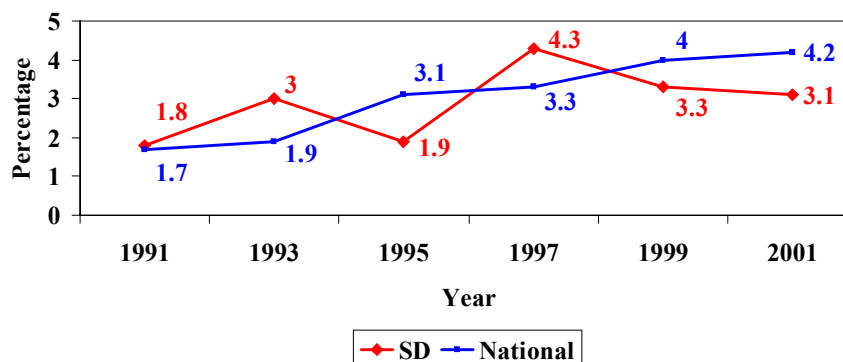
South Dakota vs. National



Question 38

Percentage of students who used any form of cocaine, including powder, crack, or freebase one or more times during the past 30 days

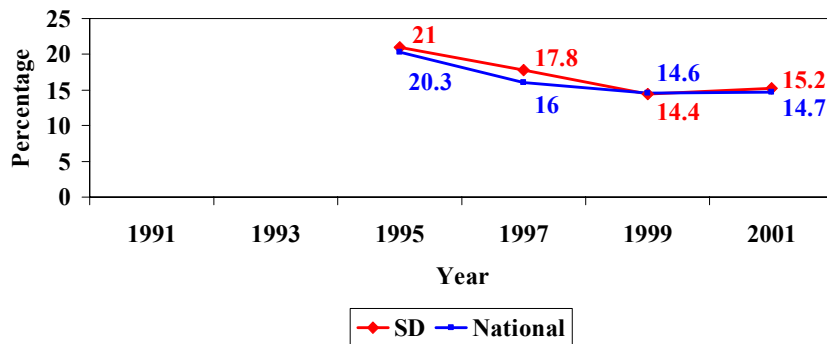
South Dakota vs. National



Question 39

Percentage of students who sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life

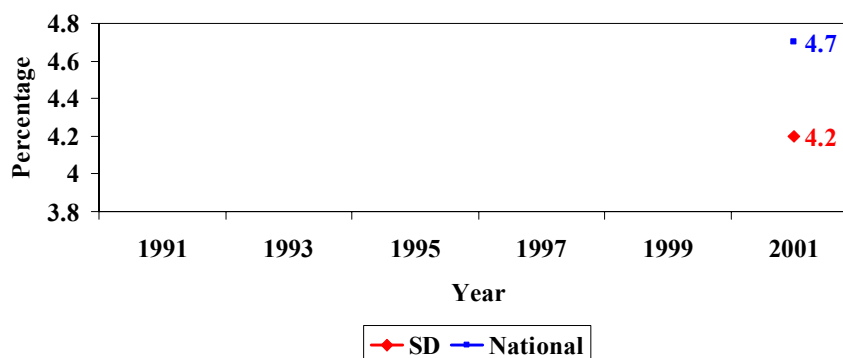
South Dakota vs. National



Question 40

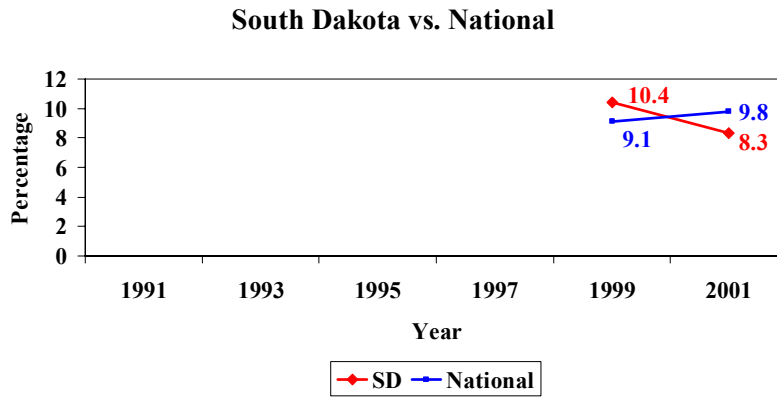
Percentage of students who sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during the past 30 days

South Dakota vs. National



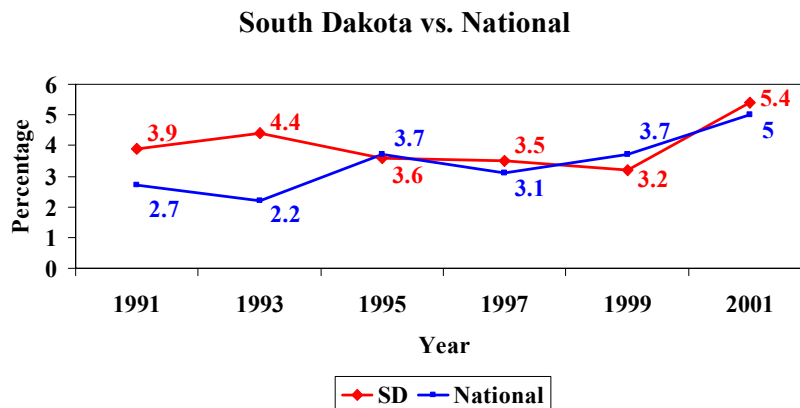
Question 41

Percentage of students who used methamphetamines one or more times during their life



Question 42

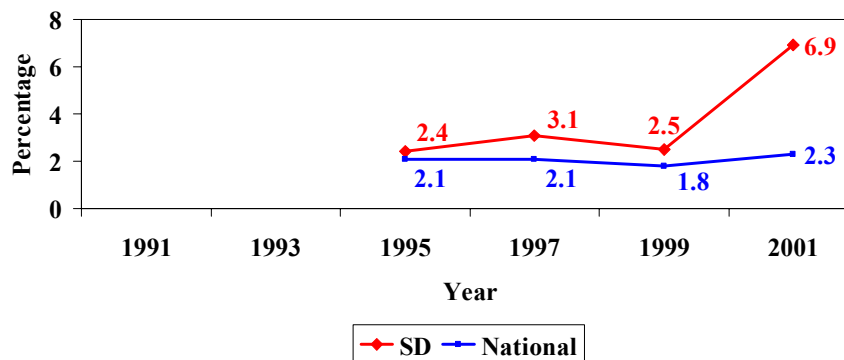
Percentage of students who took steroid pills or shots without a doctor's prescription one or more times during their life



Question 43

Percentage of students who used a needle to inject any illegal drug into their body one or more times during their life

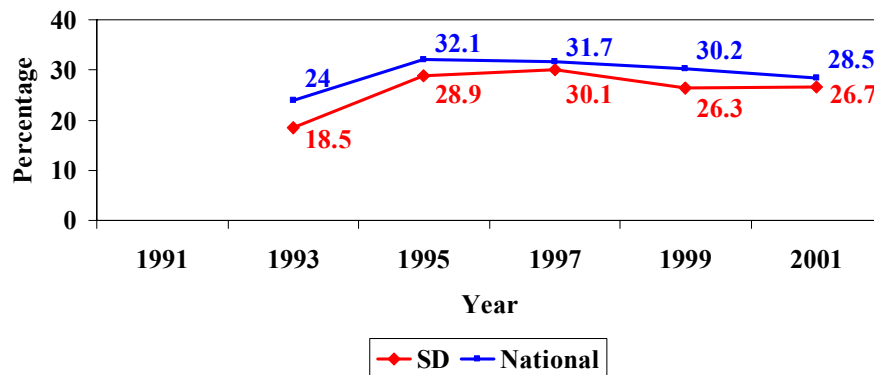
South Dakota vs. National



Question 44

Percentage of students who were offered, sold or given an illegal drug on school property by someone during the past 12 months

South Dakota vs. National



Sexual Behaviors

Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies
--

Questions:

- 45. Have you ever had sexual intercourse?
- 46. How old were you when you had sexual intercourse for the first time?
- 47. During your life, with how many people have you had sexual intercourse?
- 48. During the past 3 months, with how many people did you have sexual intercourse?
- 49. Did you drink alcohol or use drugs before you had sexual intercourse the last time?
- 50. The last time you had sexual intercourse, did you or your partner use a condom?
- 51. Have you ever been taught about AIDS or HIV infection in school?

Rationale:

These questions measure the prevalence of sexual activity, number of sexual partners, age at first intercourse, alcohol and other drug use related to sexual activity, condom use, and whether high school students have received HIV prevention education. Age at first intercourse and number of sexual partners is associated with increased risk for unwanted pregnancy and other sexually transmitted diseases, including HIV infection.²⁹ Gonorrhea rates are highest among females between the ages of 15 and 19 (715.8 cases per 100,000 females) and males between the ages of 20 and 24 (589.7 cases per 100,000 males).³⁰ Between 1990 and 1995, AIDS incidence among people aged 13 to 25 years rose nearly 20%. In 2000, 1,688 young people (aged 13 to 24) were reported with AIDS, bringing the cumulative total to 31,293 cases of AIDS in this age group.³¹ The percentage of high school students who ever had sexual intercourse decreased from 54.1% in 1991 to 45.6% in 2001, while condom use among currently sexually active students increased from 46.2% in 1991 to 58.0% in 1999 and then leveled off in 2001 (57.9%). The prevalence of multiple sex partners decreased by 24% from 18.7% to 14.2% from 1991 to 2001.⁷ In 2000, 86% of high schools required HIV prevention education.¹⁶

Related National Health Objectives for Year 2010:

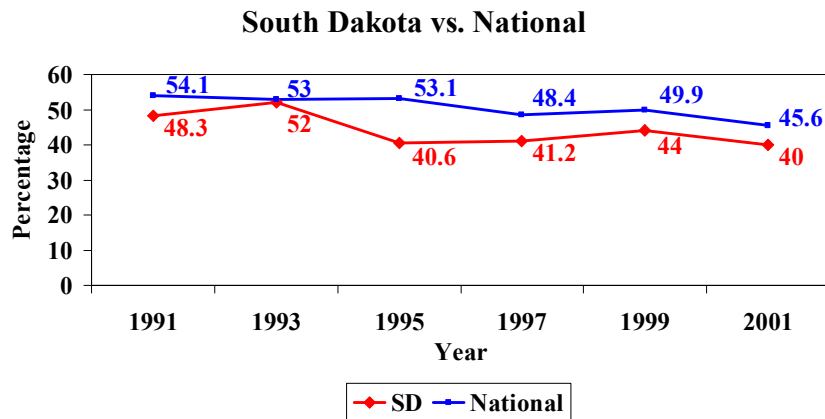
Increase the proportion of high school students who abstain from sexual intercourse or use condoms if currently sexually active to 95%.

Results: The results for Questions 45-51 are summarized on pages 48-51.

Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

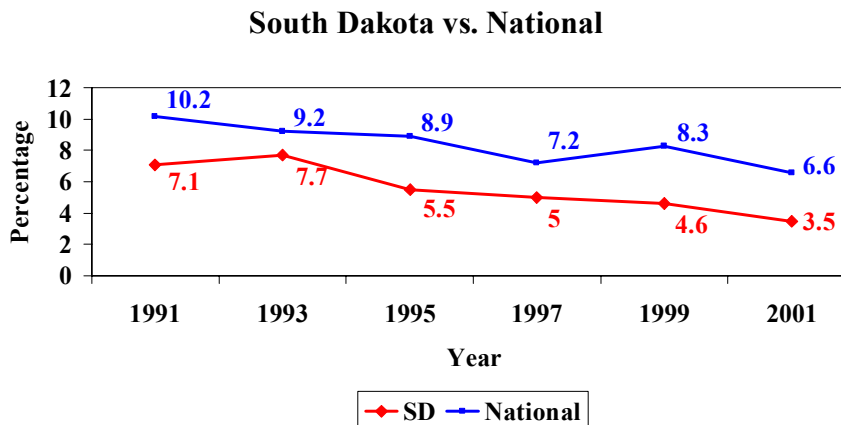
Question 45

Percentage of students who have had sexual intercourse



Question 46

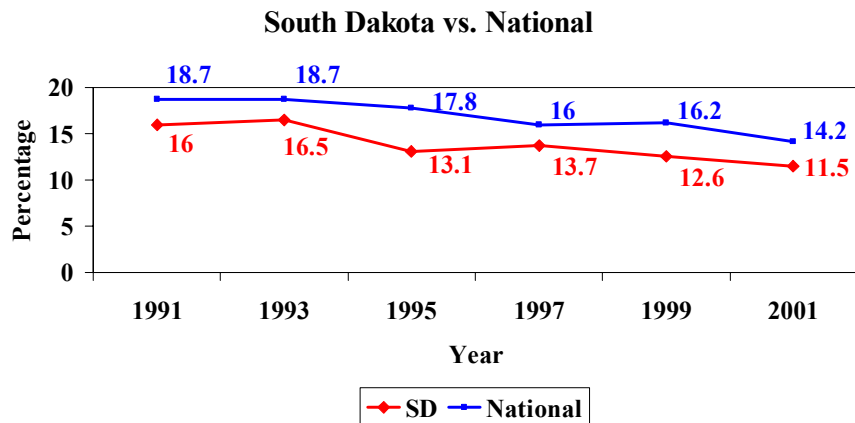
Percentage of students who had sexual intercourse
for the first time before age 13



Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

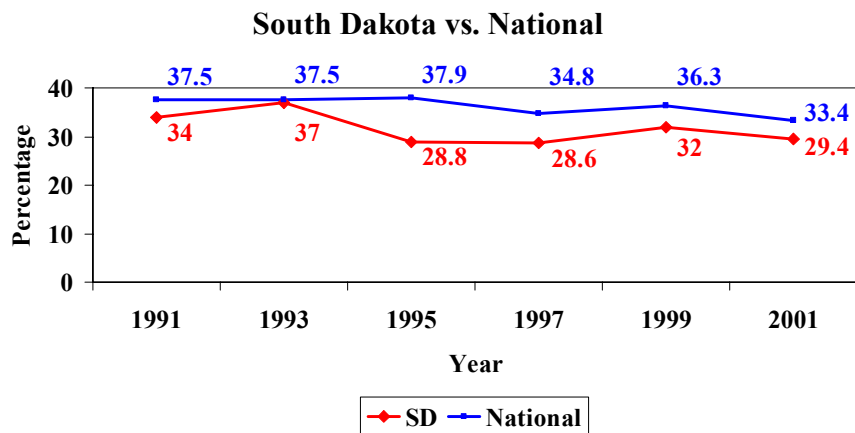
Question 47

Percentage of students who had sexual intercourse with four or more people during their life



Question 48

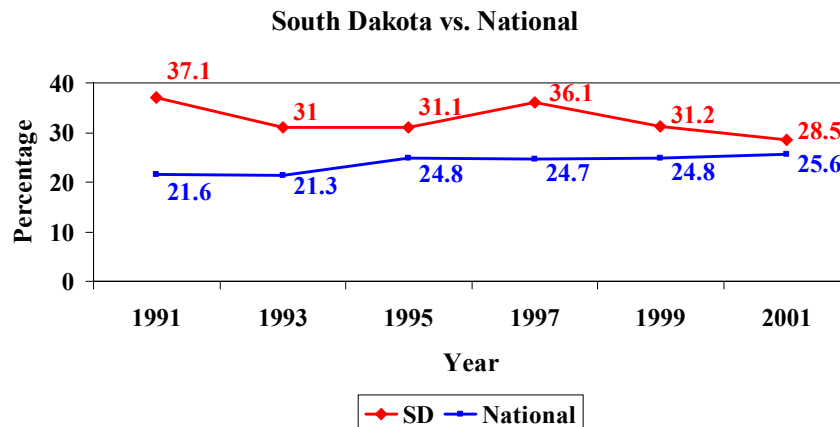
Percentage of students who had sexual intercourse with one or more people during the past three months



Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

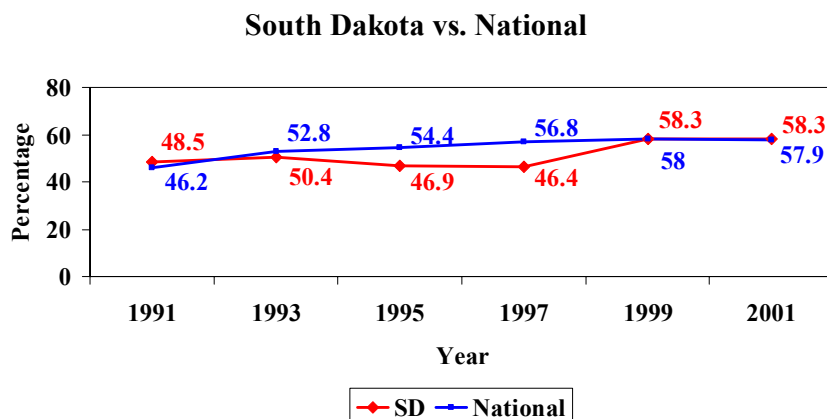
Question 49

Of students who had sexual intercourse during the past three months, the percentage who drank alcohol or used drugs before last sexual intercourse



Question 50

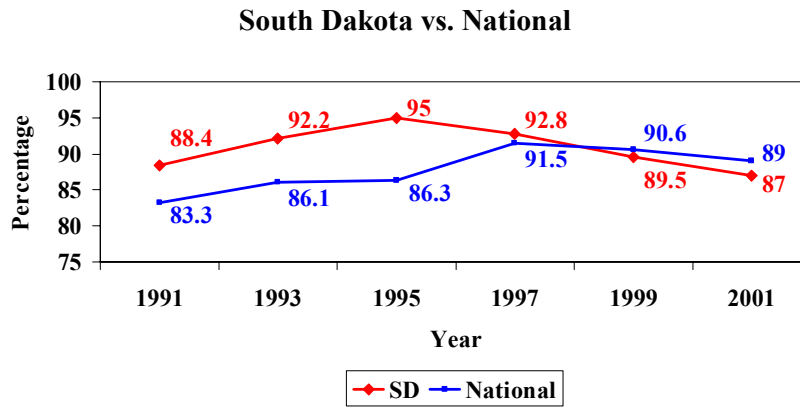
Of students who had sexual intercourse during the past three months, the percentage who used a condom during last sexual intercourse



Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Question 51

Percentage of students who had ever been taught about AIDS or HIV infection in school



Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Questions:

52. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?

53. How many times have you been pregnant or gotten someone pregnant?

Rationale:

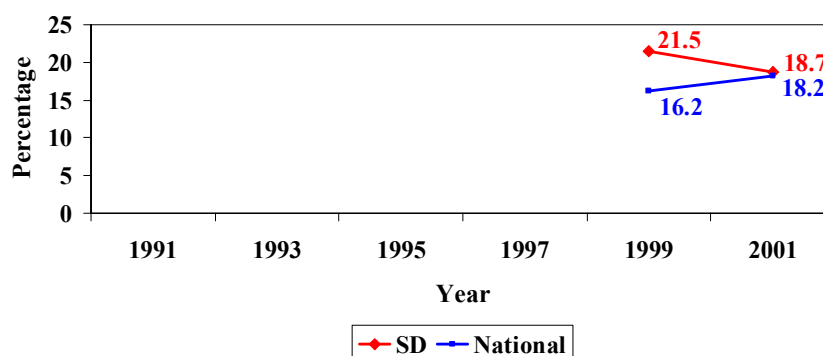
These questions measure use of contraception and whether a student has been pregnant or gotten someone pregnant. In 1997, 840,000 females aged 15–19 years old became pregnant.³² In 2000, among females aged 15–19, the birth rate was 48.5 per 1,000 and nearly 469,000 gave birth.³³ Sixty-six percent of all births among teenagers are the result of unintended pregnancy.³⁴ Among females aged 15–19 years, pregnancy rates decreased 19% from 116.5 per 1,000 in 1991 to 94.3 per 1,000 in 1997,³⁵ and birth rates decreased 26% from 62.1 per 1,000 in 1991 to 45.9 per 1,000 in 2001.³⁶ In 2001, 18.2% of currently sexually active high school students used birth control pills at last sexual intercourse.⁷

Results: The results for Questions 52 and 53 are summarized below and on page 53.

Question 52

Of students who had sexual intercourse during the past three months, the percentage who used birth control pills during last sexual intercourse

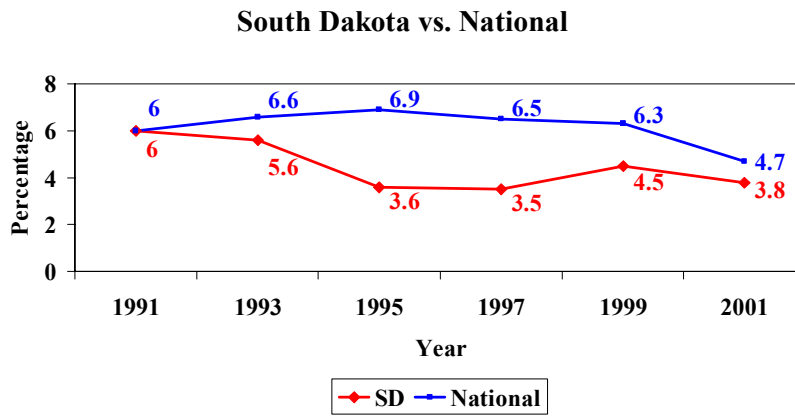
South Dakota vs. National



Sexual Behaviors that Contribute to HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Question 53

Percentage of students who had been pregnant or gotten someone pregnant one or more times



Dietary Behaviors

Questions:

- 54. How tall are you without your shoes on?
- 55. How much do you weigh without your shoes on?
- 56. How do you describe your weight?
- 57. Which of the following are you trying to do about your weight?
- 58. During the past 30 days, did you exercise to lose weight or to keep from gaining weight?
- 59. During the past 30 days, did you eat less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight?
- 60. During the past 30 days, did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?
- 61. During the past 30 days, did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)
- 62. During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?

Rationale:

These questions measure self-reported height and weight, self-perception of body weight status, and specific weight control behaviors. Data on self-reported height and weight can be used to calculate body mass index and provide a proxy measure of whether high school students are overweight. Although overweight prevalence estimates derived from self-reported data are likely to be low,^{37,38} they can be useful in tracking trends over time. Prevalence trends from national surveys of adults using self-reported height and weight have been consistent with trend data from national surveys using measured heights and weights.³⁹ Overweight and obesity are increasing in both genders and among all population groups. In 1999, an estimated 61% of United States adults and 14% of adolescents aged 12-19 years were overweight. In 1999, there were nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980.⁴⁰ Approximately 300,000 deaths a year in the United States are currently associated with overweight and obesity. Left unabated, overweight and obesity may soon cause as much preventable disease and death as cigarette smoking.⁴¹ Overweight or obesity acquired during childhood or adolescence may persist into adulthood and increase the risk later in life for coronary heart disease, gallbladder disease, some types of cancer, and

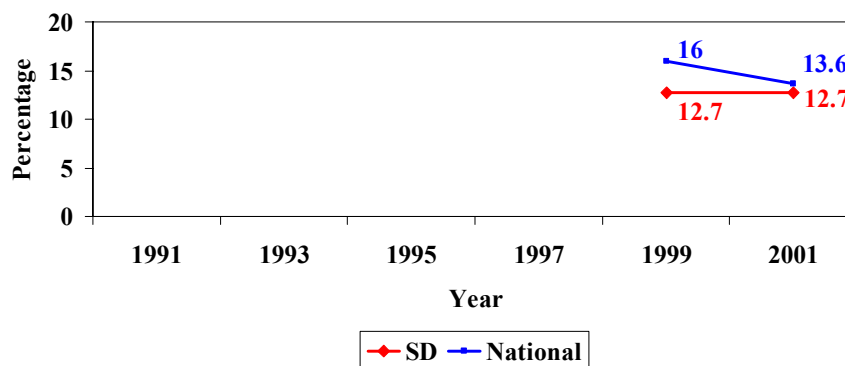
osteoarthritis of the weight-bearing joints.⁴² In adolescence, obesity is associated with hyperlipidemia, hypertension, abnormal glucose tolerance, and adverse psychological and social consequences.⁴³ Studies have shown high rates of body dissatisfaction and dieting among adolescent females, with many engaging in unhealthy weight control behaviors, such as fasting and self-induced vomiting which can lead to abnormal physical and psychological development.⁴⁴⁻⁴⁸

Results: The results for Questions 54-62 are summarized below and on pages 59-62.

Questions 54 and 55

Percentage of students who are at risk for becoming overweight

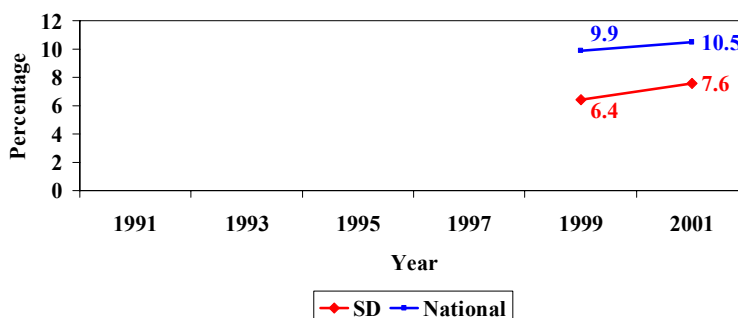
South Dakota vs. National



Questions 54 and 55

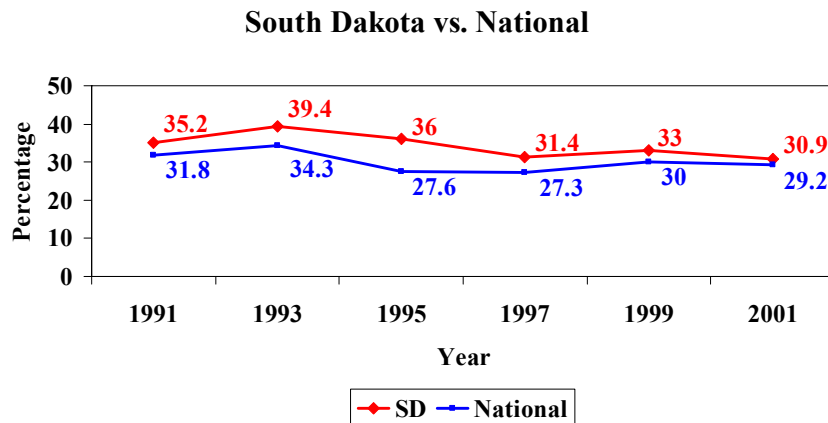
Percentage of students who are overweight

South Dakota vs. National



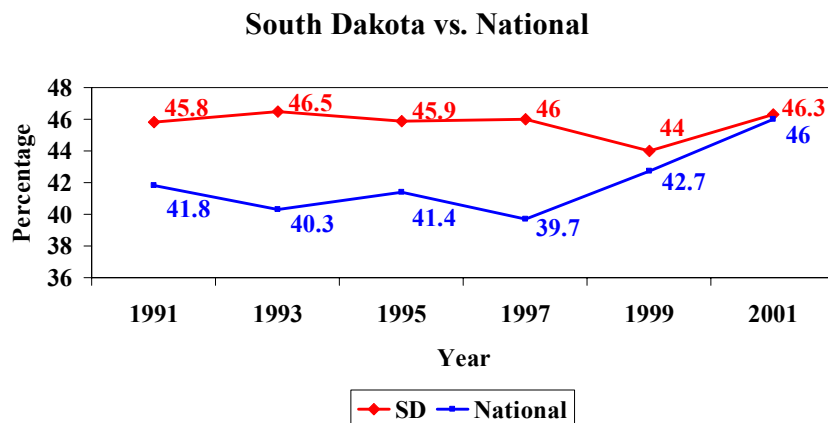
Question 56

Percentage of students who described themselves as slightly or very overweight



Question 57

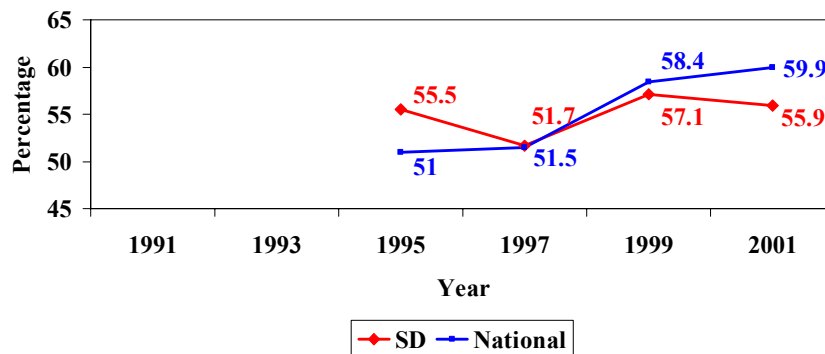
Percentage of students who were trying to lose weight



Question 58

Percentage of students who exercised to lose weight or to keep from gaining weight during the past 30 days

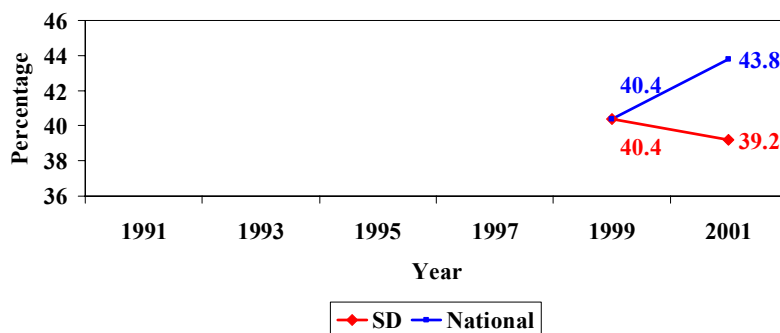
South Dakota vs. National



Question 59

Percentage of students who ate less food, fewer calories, or food low in fat to lose weight or to keep from gaining weight during the past 30 days

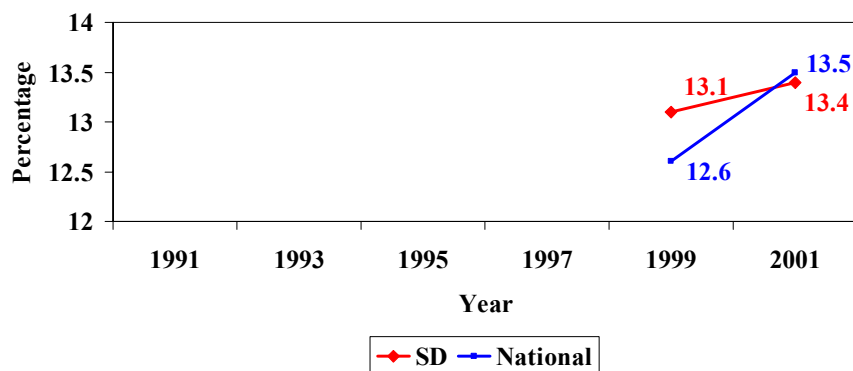
South Dakota vs. National



Question 60

Percentage of students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days

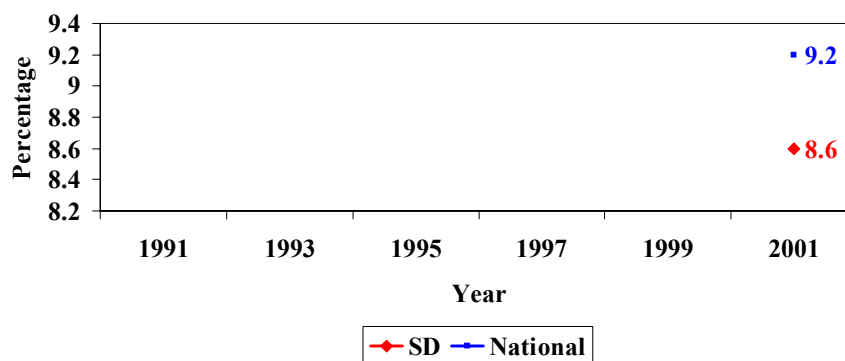
South Dakota vs. National



Question 61

Percentage of students who took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days

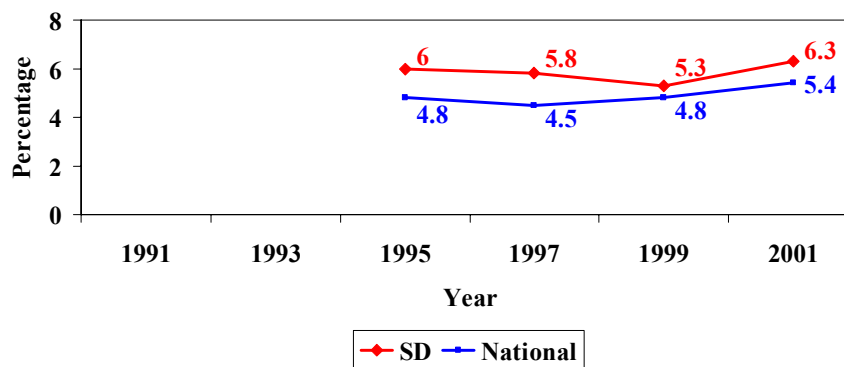
South Dakota vs. National



Question 62

Percentage of students who vomited or took
laxatives to lose weight or to keep from gaining
weight during the past 30 days

South Dakota vs. National



Questions:

63. During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
64. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)
65. During the past 7 days, how many times did you eat green salad?
66. During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)
67. During the past 7 days, how many times did you eat carrots?
68. During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)
69. During the past 7 days, how many glasses of milk did you drink? (Include the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)

Rationale:

These questions measure food choices. Six of the questions address fruit and vegetable consumption, and one addresses milk consumption. The fruit and vegetable questions are similar to questions asked of adults on CDC's Behavioral Risk Factor Survey.⁴⁹ Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. Dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer.^{50-53,7} In 2001, only 23.3% of male high school students and 19.7% of female high school students met the minimum average daily goal of at least five servings per day of vegetables and fruits.⁷ Milk is by far the largest single source of calcium for high school students.⁵⁴ Only about half of male high school students and more than 80% of female high school students do not meet dietary recommendations for calcium intake.⁵⁵ Calcium is essential for the formation and maintenance of healthy bones and teeth. Low calcium intake during the first two to three decades of life is an important risk factor in the development of osteoporosis.^{56,57}

Related National Health Objectives for Year 2010:

Increase to 78% the proportion of persons aged 2 years and older who consume at least two daily servings of fruit.

Dietary Behaviors

Increase to 50% the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables.

Increase to 50% the proportion of persons aged 2 years and older who consume at least six daily servings of grain products, with at least three being whole grains.

Increase to 75% the proportion of persons aged 2 years and older who consume less than 10% of calories from saturated fat.

Increase to 75% the proportion of persons aged 2 years and older who consume no more than 30% of calories from total fat.

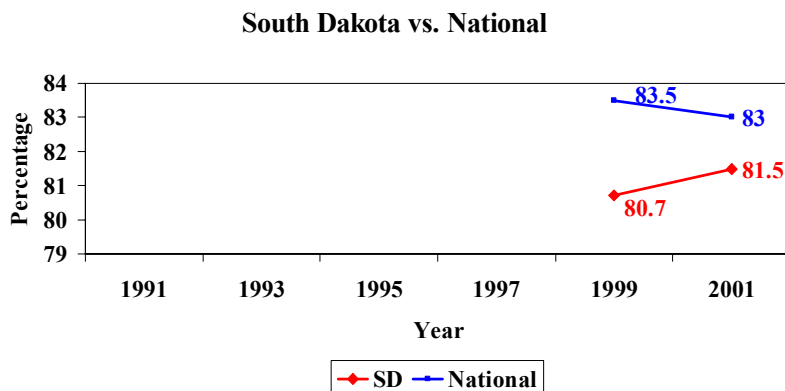
Increase to 65% the proportion of persons aged 2 years and older who consume 2,400 mg or less of sodium daily.

Increase to 75% the proportion of persons aged 2 years and older who meet dietary recommendations for calcium.

Results: The results for Questions 63-69 are summarized below and on pages 65-67.

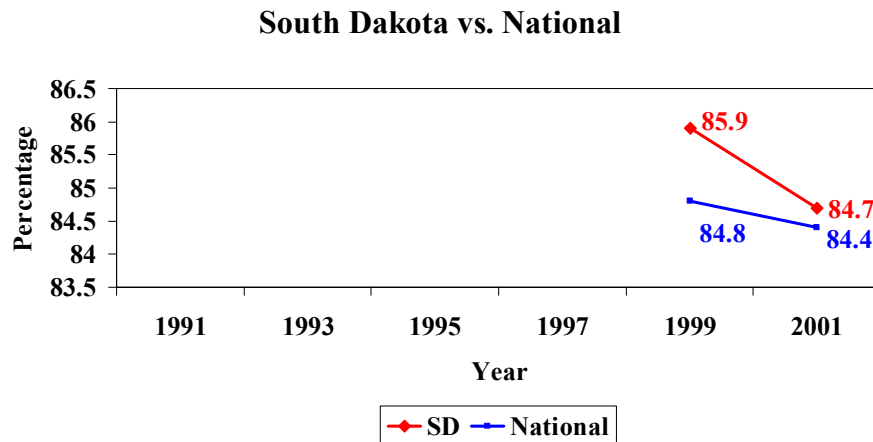
Question 63

Percentage of students who drank 100% fruit juices one or more times during the past seven days



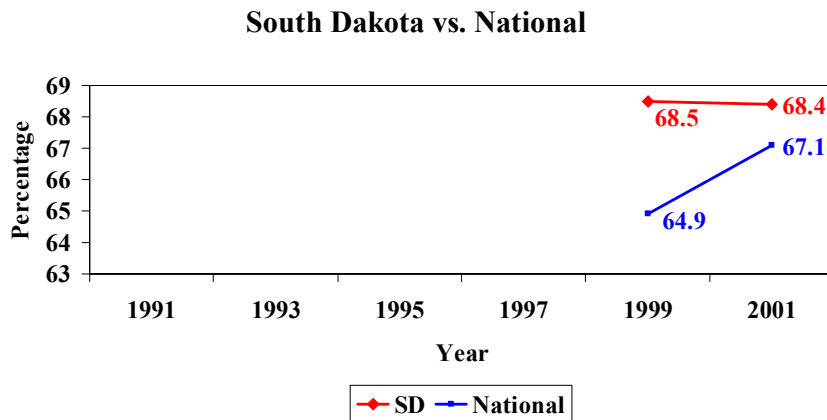
Question 64

Percentage of students who ate fruit one or more times during the past seven days



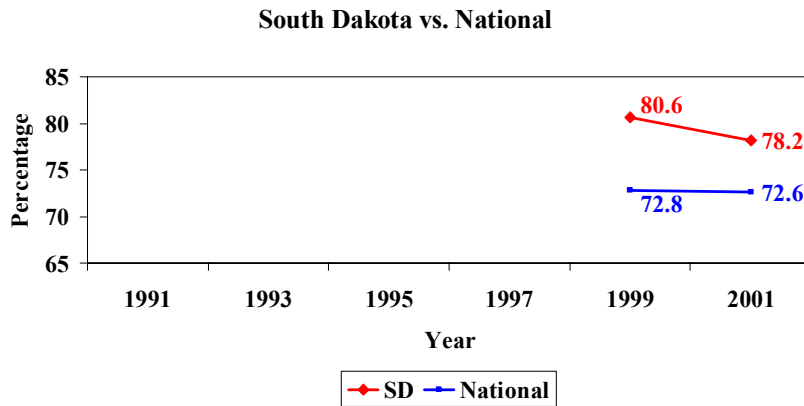
Question 65

Percentage of students who ate green salad one or more times during the past seven days



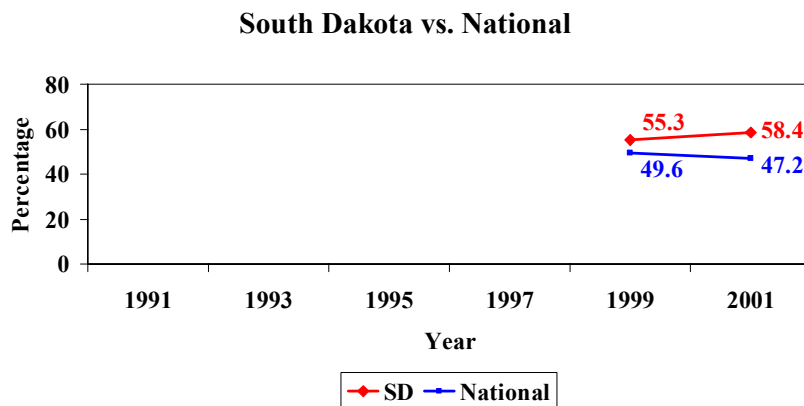
Question 66

Percentage of students who ate potatoes one or more times during the past seven days



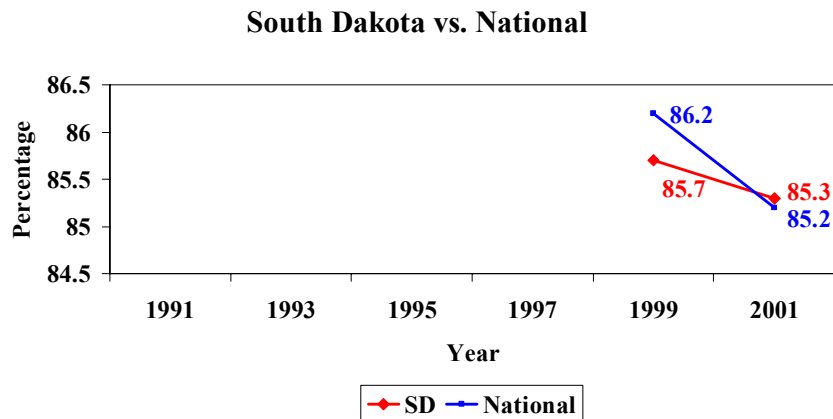
Question 67

Percentage of students who ate carrots one or more times during the past seven days



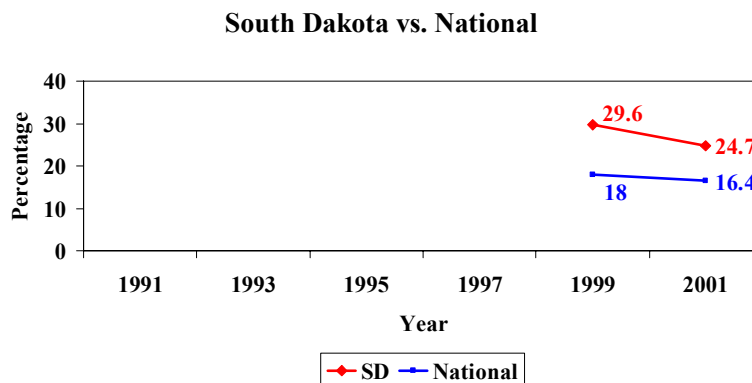
Question 68

Percentage of students who ate other vegetables
one or more times during the past seven days



Question 69

Percentage of students who drank three or more glasses
of milk per day during the past seven days



Physical Activity

Questions:

- 70. On how many of the past 7 days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activity?
- 71. On how many of the past 7 days did you participate in physical activity for at least 30 minutes that did not make you sweat or breathe hard, such as fast walking, slow bicycling, skating, pushing a lawn mower, or mopping floors?
- 72. On how many of the past 7 days did you exercise to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?
- 73. On an average school day, how many hours do you watch TV?
- 74. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
- 75. During an average physical education (PE) class, how many minutes do you spend actually exercising or playing sports?
- 76. During the past 12 months, on how many sports teams did you play?
(Include any teams run by your school or community groups.)

Rationale:

These questions measure participation in physical activity, physical education classes, sports teams, and television watching. Participating in regular physical activity helps build and maintain healthy bones and muscles, control weight, build lean muscle, and reduce fat; reduces feelings of depression and anxiety; and promotes psychological well-being.⁵⁸ Over time, regular physical activity decreases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure.⁵⁸ Decreases in vigorous physical activity occur during grades 9–12, particularly for girls; by 11th grade, half of female high school students do not participate in sufficient levels of vigorous physical activity.⁷ School physical education classes can increase adolescent participation in moderate to vigorous physical activity^{59,60} and help high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.⁶¹ The percentage of high school students enrolled in daily physical education class decreased from 1991–1995 (from 41.6% to 25.4%) and increased from 1995–2001 (from 25.4% to 32.2%), but still remained far below the 1991 level.⁷ Television viewing is the principal sedentary leisure time behavior in the United States and television viewing in young people is related to obesity.^{62,63}

Related National Health Objectives for Year 2010:

Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days to 35%.

Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardio respiratory fitness 3 or more days per week for 20 or more minutes per occasion to 85%.

Increase the proportion of adolescents who participate in daily physical education to 50%.

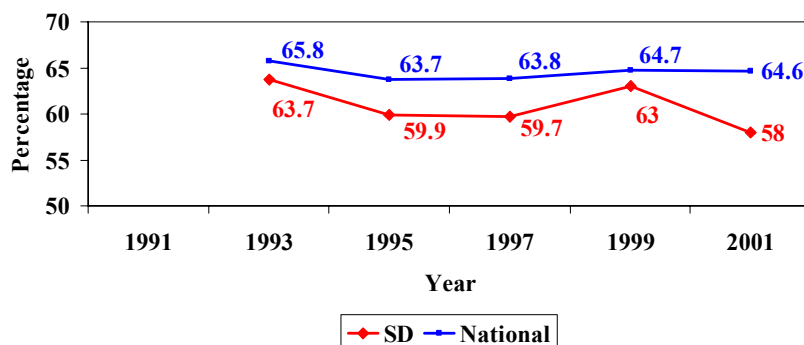
Increase the proportion of adolescents who spend at least 50% of school physical education class time being physically active to 50%.

Increase the proportion of children and adolescents who view television 2 or fewer hours on a school day to 75%.

Results: The results for Questions 70-76 are summarized below and on pages 73-75.

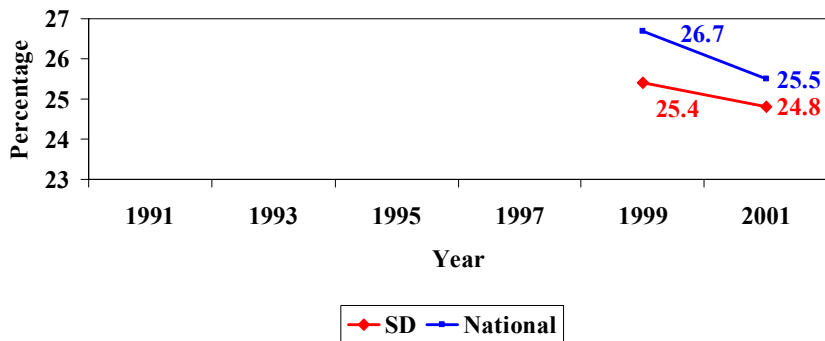
Question 70

Percentage of students who exercised or participated in physical activities for at least 20 minutes that made them sweat or breathe hard on three or more of the past seven days

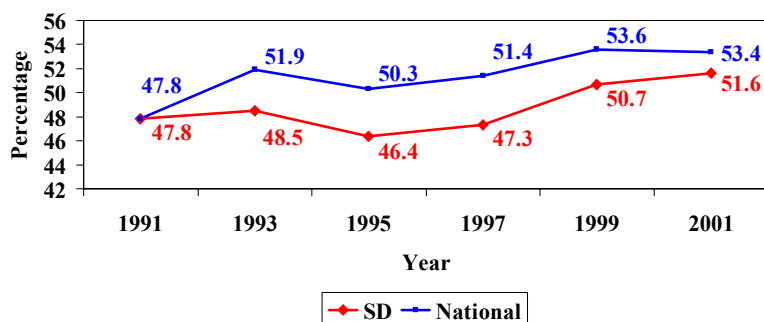
South Dakota vs. National

Question 71

Percentage of students who participated in physical activities that did not make them sweat or breathe hard for at least 30 minutes on five or more of the past seven days

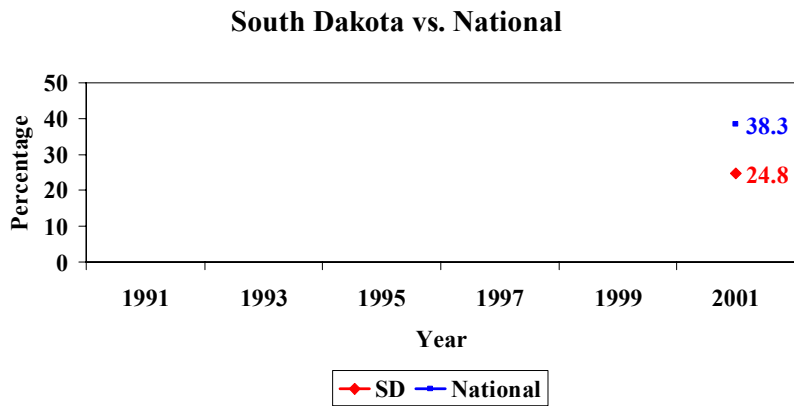
South Dakota vs. National**Question 72**

Percentage of students who did exercise to strengthen or tone their muscles on three or more of the past seven days

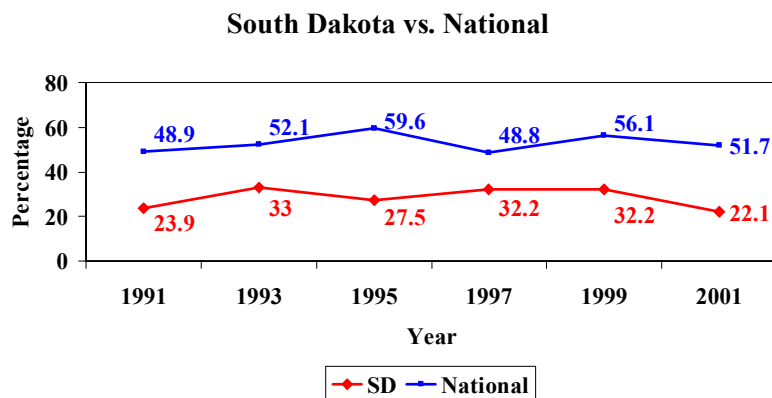
South Dakota vs. National

Question 73

Percentage of students who watched three or more hours of TV per day on an average school day

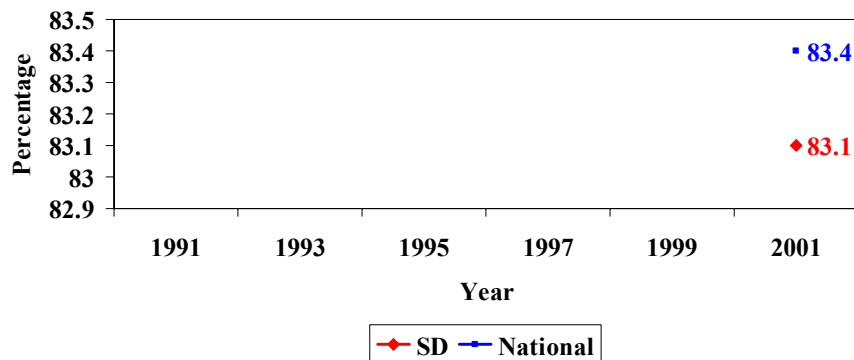
**Question 74**

Percentage of students who attended physical education (PE) classes one or more days during an average school week

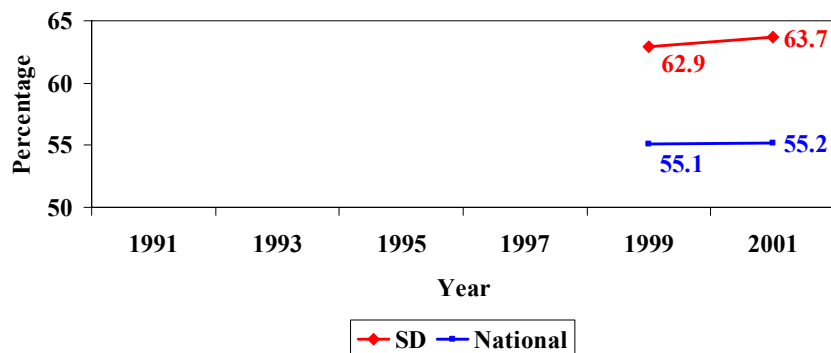


Question 75

Of students enrolled in physical education (PE) class, the percentage who exercised or played sports more than 20 minutes during an average physical education class

South Dakota vs. National**Question 76**

Percentage of students who played on one or more sports teams during the past 12 months

South Dakota vs. National

References

1. Centers for Disease Control and Prevention. Injury-control recommendations: Bicycle helmets. *Morbidity and Mortality Weekly Report* 44:1-17, 1995.
2. Sosin DM, Sacks JJ, Webb KW. Pediatric head injuries and deaths from bicycling in the United States. *Pediatrics* 98:868-870, 1996.
3. Rivara FP. Traumatic deaths of children in the United States: currently available prevention strategies. *Pediatrics* 75:456-62, 1985.
4. Thompson RS, Rivara FP, Thompson DC. A case-control study of the effectiveness of bicycle safety helmets. *New England Journal of Medicine* 320:1361-7, 1989.
5. Thompson DC, Nunn ME, Thompson RS, Rivara FP. Effectiveness of bicycle safety helmets in preventing serious facial injury. *Journal of American Medical Association* 276:1974-5, 1996.
6. Thompson DC, Rivera FP, Thompson RS. Effectiveness of bicycle safety helmets in preventing head injuries: a case-control study. *Journal of American Medical Association* 276:1968-73, 1996.
7. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance - United States, 2001. *Morbidity and Mortality Weekly Report* 51:SS-4, 2002.
8. National Highway Traffic Safety Administration. Benefits of safety belts and motorcycle helmets: report to Congress, February 1996. Washington DC: United States Department of Transportation, 1996.
9. Hoyert DL, Arias E, Smith BL, Murphy SL, Kochanek KD. Deaths: Final Data for 1999. *National Vital Statistics Reports* 49: 1-113, 2001.
10. National Highway Traffic Safety Administration. 1998 Youth fatal crash and alcohol facts. Washington, DC: United States Department of Transportation, 1998.
11. Centers for Disease Control and Prevention. Alcohol Involvement in Fatal Motor-Vehicle Crashes - United States, 1997-1998. *Morbidity and Mortality Weekly Report* 48(47):1086-7, 1999.
12. National Center for Injury Prevention and Control. Injury Fact Book 2001-2002. Atlanta, GA: Centers for Disease Control and Prevention; 2001.
13. Anderson RN. Deaths: Leading Causes for 1999. *National Vital Statistics Reports* 49: 1-88, 2001.
14. Rosenberg ML, O'Carroll PW, Powell KE. Let's be clear. Violence is a public health problem. *Journal of the American Medical Association* 267:3071-3072, 1992.
15. Kaufman P, Chen X, Choy SP, Peter K, Ruddy SA, Miller AK, Fleury JK, Chandler KA, Planty MG, Rand MR. Indicators of School Crime and Safety: 2001. United States

Departments of Education and Justice. NCES 2002- 113/NCJ-190075. Washington, DC: 2001.

16. Centers for Disease and Prevention. School Health Programs and Policies Study: A Summary Report. Journal of School Health. 71(7)249-350, 2001.

17. Cotton NU, Resnick J, Browne DC, Martin SL, McCarraher DR, Woods J. Aggression and fighting behavior among African-American adolescents: Individual and family factors. American Journal of Public Health 84:618-622, 1994.

18. Davis TC, Peck GQ, Storment JM. Acquaintance rape and the high school student. Journal of Adolescent Health 14:220-224, 1993.

19. United States Department of Health and Human Services. Preventing Tobacco Use Among Young People: A Report of the Surgeon General. Washington, DC: United States Government Printing Office, 1994.

20. Everett SA, Giovino GA, Warren CW, Crossett L, Kann L. Other substance abuse among high school students who use tobacco. Journal of Adolescent Health 23:289-296, 1998.

21. Centers for Disease Control and Prevention. Projected smoking-related deaths among youth - United States. Morbidity and Mortality Weekly Report 45(44)971-4, 1996.

22. Small MI, Jones SE, Barrios LC, Crossett LS, Dahlberg LL, Albuquerque MS, Sleet DA, Greene BZ, Schmidt ER. School policy and environment: results from the School Health Policies and Programs Study 2000. Journal of School Health 71(7): 325-334, 2001.

23. United States Department of Health and Human Services. Spit tobacco and youth. United States Department of Health and Human Services, Office of Inspector General. Publication No. OEI 06-92-00500, 1992.

24. Centers for Disease Control and Prevention (July 2002). Oral Cancer: Deadly to Ignore. Fact sheet on oral cancer. Available at:
<http://www.cdc.gov/OralHealth/factsheets/oc-facts.html>

25. Centers for Disease Control and Prevention. Cigar smoking among teenagers in United States, Massachusetts, and New York, 1996. Morbidity and Mortality Weekly Report 46:433-440, 1997.

26. Wechsler H, Dowdall GW, Davenport A, Castillo S. Correlates of college student binge drinking. American Journal of Public Health 85:921-926, 1995.

27. Substance Abuse and Mental Health Services Administration. (2001). Summary of findings from the 2000 National Household Survey on Drug Abuse (NHSDA) Series: H-13, DHHS Publication No. SMA 01-3549. Rockville, MD, 2001.

28. Blanken AJ. Measuring use of alcohol and other drugs among adolescents. Public Health Reports 108:25-30, 1993.

29. Abma JC, Sonenstein FL. Sexual activity and contraceptive practices among teenagers in the United States, 1988 and 1995. National Center for Health Statistics. Vital Health Statistics Series 23:1-26, 2001.
30. Centers for Disease Control and Prevention. (August 2002). Tracking the Hidden Epidemics, Trends in STDs in the United States, 2000. [On-line] Available at: http://www.cdc.gov/nchstp/dstd/Stats_Trends/Trends2000.pdf
31. Centers for Disease Control and Prevention. (August 2002). HIV/AIDS Surveillance in Adolescents: L265 Slide Series. [On-line]. Available at: <http://www.cdc.gov/hiv/graphics/adolesnt.htm>
32. Centers for Disease Control and Prevention. National and state-specific pregnancy rates among adolescents - United States, 1995-1997. Morbidity and Mortality Weekly Report 49:605-611, 2000.
33. Martin JA, Hamilton BE, Ventura SJ, Menacker F, Park MM. Births: Final Data for 2000. National Vital Statistics Reports 50:1-101, 2002.
34. National Center for Health Statistics. Fertility, family planning, and women's health: New data from the 1995 National Survey of Family Growth. Vital and Health Statistics Series 23:19, 1997.
35. Ventura SJ, Mosher WD, Curtin SA, Abma JC. Trends in pregnancy rates for the United States, 1976-97: an update. National Vital Statistics Report 49(4):1-12, 2001.
36. Martin JA, Park MM, Sutton PD. Births: preliminary data for 2001. National Vital Statistics Report 50(10):1-20, 2002.
37. Brener ND, McManus T, Galuska DA, Lowry R, Wechsler H. Reliability and Validity of Self-Reported Height and Weight Among High School Students. Journal of Adolescent Health, in press.
38. Goodman E, Hinden BR, Khandelwal S. Accuracy of teen and parental reports of obesity and body mass index. Pediatrics 106:52-8, 2000.
39. Galuska DA, Serdula M, Pamuk E, Siegel PZ, Byers T. Trends in overweight among U. S. adults from 1987 to 1993: a multistate telephone survey. American Journal of Public Health 86:1729-1735, 1996.
40. NCHS, CDC. (August 2002) Prevalence of overweight and obesity among adults: United States, 1999 [On-line]. Available at: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/3and4/overweight.htm>
41. United States Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. Rockville, MD: United States Department of Health and Human Services, Public Health Service, Office of the Surgeon General; 2001.

42. Public Health Service. The Surgeon General's Report on Nutrition and Health. Washington, DC: United States Department of Health and Human Services, Public Health Service, 1988. DHHS publication no. (PHS) 88-50210.
43. Dietz WH. Health consequences of obesity in youth: childhood predictors of adult disease. *Pediatrics* 101:518-525, 1998.
44. French SA, Jeffery RW. Consequences of dieting to lose weight: effects on physical and mental health. *Health Psychology* 13:195-212, 1994.
45. Serdula MK, Collins ME, Williamson DF, Anda RF, Pamuk ER, Byers TE. Weight control practices of U. S. adolescents. *Annals of Behavioral Medicine* 119:667-671, 1993.
46. Story M, French SA, Resnick MD, Blum RW. Ethnic and socioeconomic status differences in dieting behaviors and body image perceptions in adolescents. *International Journal of Eating Disorders* 18:173-179, 1995.
47. Whitaker A, Davies M, Shaffer D, Johnson J, Abrams S, Walsh BT, Kalikow K. The struggle to be thin: a survey of anorexic and bulimic symptoms in a non-referred adolescent population. *Psychological Medicine* 19:143-163, 1989.
48. Neumark-Sztainer D, Story M, Hannan PJ, Perry CL, Irving LM. Weight-related concerns and behaviors among overweight and nonoverweight adolescents: implications for preventing weight-related disorders. *Archives of Pediatrics and Adolescent Medicine* 156(2):1-21, 2002.
49. Serdula MK, Byers T, Mokdad AH, Simoes E, Mendlein JM, Coates RJ. The association between fruit and vegetable intake and chronic disease risk factors. *Epidemiology* 7:161-165, 1996.
50. Van Duyn MA, Pivonka E. Overview of the health benefits of fruit and vegetable consumption for the dietetics professional: selected literature. *Journal of American Dietitians Association*. 100(12):1511-21, 2000.
51. Ness AR, Powles JW. Fruit and vegetables, and cardiovascular disease: a review. *International Journal of Epidemiology*. 26(1):1-13, 1997.
52. Terry P, Terry JB, Wolk A. Fruit and vegetable consumption in the prevention of cancer: an update. *Journal of Internal Medicine*. 250(4):280-90, 2001.
53. National Cancer Institute. 5 A Day for Better Health Program. NIH Publication 01-5019, September 2001.
54. United States Department of Agriculture, Agricultural Research Service. Unpublished data from the 1989-91 Continuing Survey of Food Intakes by Individuals. February 1998.

55. National Center for Health Statistics, Centers for Disease Control and Prevention. Unpublished data from the 1988-94 National Health and Nutrition Examination Survey. May 1998.
56. NIH Consensus Development on Optimal Calcium Intake. Optimal calcium intake. *Journal of the American Medical Association* 272:1942-1948, 1994.8
57. United States Department of Agriculture, Agricultural Research Service. Unpublished data from the 1994-96 Continuing Survey of Food Intakes by Individuals. February 1998.
58. United States Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. Atlanta: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.
59. McKenzie KL, Nader PR, Strikmiller PK, Yang M, Stone EJ, Perry CL, Taylor WC, Epping JM, Feldman HA, Luepker RV, Kelder SH. School physical education: effect of the Child and Adolescent Trial for Cardiovascular Health. *Preventive Medicine* 25:423-431, 1996.
60. Sallis JF, McKenzie TL, Alcaraz JE, Kolody B, Faucette N, Hovell MF. The effects of a 2-year physical education program (SPARK) on physical activity and fitness in elementary school students. *American Journal of Public Health* 87:1328-1334, 1997.
61. Centers for Disease Control and Prevention. Guidelines for school and community programs to promote lifelong physical activity among young people. *Morbidity and Mortality Weekly Report* 46(No. RR-6):1-36, 1997.
62. Crespo CJ, Smith E, Troian RP, Bartlett SJ, Macera CA, Anderson RE. Television watching, energy intake and obesity in United States children. *Archives of Pediatric and Adolescent Medicine*. 155:360-365, 2001.
63. Gortmaker SL, Must A, Sobol AM, Peterson K, Coolditz GA, Dietz WH. Television viewing as a cause of increasing obesity among children in the United States, 1986-1990. *Archives of Pediatric and Adolescent Medicine*. 150:356-362, 1996.



This project completed with support provided by Cooperative Agreement (U87-CCU809021-10-6) with the Division of Adolescent and School Health, Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta GA 30333.